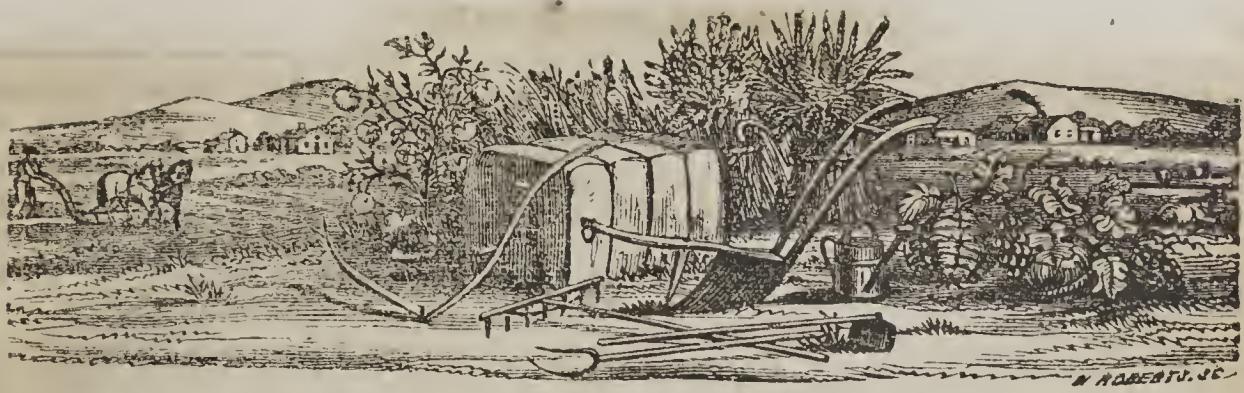


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THE FARMER AND PLANTER.

Devoted to Agriculture, Horticulture, Domestic and Rural Economy.

Vol. VII.

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From the N. C. Cultivator.

On the Accumulation, Preparation and Application of Stock-yard and Stable Manure.

* * * * *

A cursory glance at the writing of the ancients reveals to us that besides knowing the powers of various means they were also acquainted with the practices of fallowing, rotation, pruning and irrigation; all these several branches have been since carried to much higher success and produced much more important results, but the Chinese, a nation almost proverbially opposed to all progress, is still ahead of the world in the minutiae of agriculture; in the collection, preparation and careful application of manure they are models worthy of the closest imitation; but until our broad and happy land shall teem as theirs we cannot have either the incentive or the means for exertion.

The best method of securing a large amount of manure is undoubtedly the practice of soil-ing cattle—a method practiced on the continent with much success. It is very certain that this plan furnishes the most abundant means of procuring great quantities of manure at a small expense, and if pursued to any extent in this State, would soon change the entire course of agriculture, reclaim vast tracts of barren waste, pour a constant current of wealth outwardly into the hands of our neighbors, and inwardly into the pockets of our farmers. It consists in raising, first, large quantities of green crops, which would by no means so much exhaust our lands as those of grain; and secondly, in keeping flocks of sheep and herds of cattle to consume these crops, and turn them into manure to be restored with no-niggard hand to the earth which produced them, and to pay the owner a largely increased profit by the wool, hides and carcasses. The cattle are kept constantly confined in pens of suitable size, or pastured in different fields in succession. This plan, so cheap, so effective, which saves the trouble of composts and guano, bone-dust, irrigation and liquid manures, and all the thousand projects and schemes for the transfer of money from the pockets of the producer, to those of the merchant and factor, after a few years of successful experiment, would revolutionize our State. The enormous and yearly increasing expense of thousands of miles of rail-fences would be avoided, because instead of fences around whole plantations to keep the cattle out, all that is needed would be a slight wicket to keep them in at night, or a wire fence, with a boy or two to confine them to their appropriate pastures during the day. Instead of long files of lean, gaunt and hungry hogs, which flit across the vision and really leave the spectator in doubt whether they are not only spectral residents, condemned to wander over this mundane sphere for unheard of crimes committed in days long since forgotten, we should see hogs reposing in rich clover fields, alternating from one pasture to another, as they succe-

sively became fit for use; and ready at any time to offer up a carcase which at four months would out-weigh in sound, healthy flesh and pure lard, a half a dozen of what we call hogs, which have been starved for two years, and are then only fit for the knife at an expence of more corn than the pastured hogs have consumed during their whole existence. Instead of yearly destroying timber enough to pay for a plantation, we would send our noble oaks, pines, chestnuts and cedars to float in triumph o'er old ocean's waves to climes unknown, bearing the glory of our flag, where now the stars of Heaven rise and set in solitary majesty, and the roar embattled elements alone, wakes the slumber of eternal silence. As proof of the efficacy of this system, I need only refer to what is believed to be the only example of it practiced in this country: cowpennning a lot for turnips, potatoes, &c., the success of this plan is abundantly demonstrated by the well known fact. The benefits of yarding are great; yet during summer, the loss by evaporation and washing is also considerable. Some farmers turn in their cows and sheep together, which answers very well when the soil contains much gravel or warm sand, and is not positively bad when it consists mainly of loam. But it is regarded as more judicious to fold the cattle by themselves on a dry, hungry soil, and the sheep alone on a stiff, heavy and cold one. It being now clearly demonstrated that in cheapness and effectiveness the system of combined soil-ing and manuring exceeds all others, it is with regret I hasten on to another point of this es-say. I regret it because it is capable of the most perfect proof by facts which it would require volumes to contain, that it is to this system of raising and applying large quanti-ties of manure that we must eventually attribute the agricultural regeneration of North Caro-lina—we save in manures, in fences, in the number of our cattle and hogs and sheep, be-cause if we keep fewer, we must feed them better, and make up in quality what we lack in quantity—a few well fed hogs would be worth more than treble the number of landpikes we have now; we should prevent the ravages they now so extensively commit, the wounds and bruises they constantly receive, the loss by star-vation, accident and theft; we should gain much in having a larger, handsomer, and healthier breed, and by all the circumstances which distinguish the herds of half-wild, half-fed and wholly neglected animals which now wander so disconsolately over our broom fields, and that cluster of profits and beauties, which mark a similar number, born and bred under the owner's eye, filling milk-pails and dairies and pur-ses by their superabundant yield, affording the most pleasant aliment during life, the most nut-ritious after death, and last, but not least, lend-ing a charm and a beauty to the landscape that in every age has delighted the gaze of the poet and philosopher.

It is the common practice to pen up cattle and other stock at night fall; this should be rigorously persevered in, and in addition, all leisure moments and all spare hands should be em-ployed in collecting the raw materials which

the stock may convert into manure; pinestraw, and that of wheat, peas, oats, rye, &c., the stalks and shucks of Indian corn should be abundantly spread over the yard, and after be-ing fully saturated and impregnated with the virtues of the manure, should be heaped and composted under shelter, or otherwise secured from the influences of the sun and rain, and a fresh supply laid down. It is astonishing how many substances an enterprising farmer can find placed just in his way, which a little care would enable him to convert into almost an equal amount of valuable manure. Bran, corn cobs, weeds, saw-dust, charcoal, leaves, trash of all sorts may thus be advantageously used; in fact, any vegetable or animal substance, con-taining as they do, the elements of the crop, or the food which produced them, can thus be made to restore their locked up treasures to fu-ture similar crops. For chemical investi-gation the most minute abundantly shows that each crop and every animal derives certain pec-u-liar substances from the earth, and if one single crop be successively taken from the fields, the pecu-liar elements necessary for that crop will be exhausted, and it will cease to flourish, while another may succeed admirably. Thus wheat requires silica and potash, the one giv-ing strength to the straw, the other greenness and general health; a succession of wheat crops therefore exhausts these two elements, and un-less they are returned in some shape or other, the straw becomes weak and short, the blade pale and sickly, and the crop fails. Thus too on pasture lands—cattle require large amounts of phosphate of lime to form their bones—it is also present in a considerable proportion in milk—10 gallons containing $\frac{1}{2}$ lb. of this salt—and un-less it be returned in ground bones, or some similar substance, the grass crops fail. Every crop then requires its own pecu-liar food, whose chemical constituents are found in its leaves and seeds; we must, therefore, return to the earth what we take from it, and as this cannot be done by plowing in the crop itself, except in unimportant cases, as clover, peas, buck-wheat, &c., we must do so by carrying on it the crops after they have served us by feeding our stock, and are prepared for the use of fu-ture crops by undergoing a new process, and acquiring other properties by passing through the bodies of our stock. Food in its passage through this animal laboratory becomes mixed with animalized matter, and is in consequence, richer and more valuable weight for weight in manure, than the dung procured by littering cattle; although it must necessarily be much less in bulk or quantity from the large pro-portion of the digesting food, which goes off by breathing and insensible perspiration; besides which it is extremely difficult to prevent the urine and the valuable juices from sinking through the floors of stables or the soil of farm yards. Could these inconveniences be effectu-ally provided against by a proper flooring of chalk, clay or gypsum, a much larger quantity and a better quality of manure would readily be secured. Chemistry has discovered numer-ous composts formed of certain specific materi-als, and adapted to each particular crop, and

While in many instances under the highest state of agriculture, and after perfect preparation of the soil, many of them have been found profitable, still, as a general rule, stable and farm-yard manure will be found the cheapest, most universally effective, and most easily applied, under the present state of things in N. C.

The proper location of the stock-yard is by no means a matter of small importance. It should not be placed on a hill-side, so as to be subject to constant washings from every rain that falls, though it is of considerable advantage that it should be on the highest ground, as then all the heaviest loads would descend on their way to the fields. A good plan is to have the bottom made dishing, and after being cleared of stones, &c., rammed very hard to prevent the rich fluids from escaping downwards. Some farmers are so improvident as to place their stables on the side of a brook, as this affords the easiest means of removing the rich surplus of their manure which is washed into it by every rain, or escapes down the road side, marking its oozy bed by a black deposit, which the suffering fields on either hand are dying to obtain; or as an old farmer used to say, "there were just so many dollars rolling away down hill—catch them—catch them." Some authors have recommended very expensive and extensive preparations of shallow wells to receive the liquids, fitted with pipes and pumps; but though there is but little question that these arrangements would pay very well under certain circumstances, it is not at all probable they would suit the present condition and future prospects of our farmers; there are many, many things which science has years since decided, and which necessity loudly calls for, but which we may long despair of finding suitable for us, and "these are of them." Our present duty is, as far as possible to examine all the plans proposed, deduce their principles, and apply them, if suitable, without confining ourselves too closely to any set of opinions, or tying ourselves too firmly to the dicta of any professor. Years and years from this time, when this society shall number as members, every farmer in the State, and every citizen shall contribute his mite to the good cause, we shall advance as a determined band, conquering every prejudice, overcoming every obstacle, and then we too can have our liquid manure tanks, our pipes and pumps, with engines and hose, which look so pretty on paper, and cost so high on the ground.

There is one plan though which we cannot help recommending as simple, cheap and efficacious, and that is stable cellars: some hill-side might be taken advantage of, so as to allow a small space between the floor of the stable and the ground, then the floor being grated and well littered, larger spaces being left at convenient distances, the liquids would filter through on the substances prepared below, and the solids being occasionally added, the whole mass could easily be kept in a cool, dark corner out of reach of sun and rain. All the materials necessary for converting this into compost, being here heaped together and mixed at proper intervals, might be shoveled into wagons

standing on a level with the door. These cellars are sometimes used as hog-pens, but on the score of cleanliness, and in consideration for those who eat them, this plan is liable to serious objection; they certainly would stir the mass very effectually in their search for any stray grains of corn, but very little labor is requisite to do this systematically. Learned physicians trace many of our diseases to our eating the flesh of unhealthy swine, and it is certainly much better that when penned they should be fed on clean and healthy food. When the floors are of close plank, they should incline to the rear of the cattle, and be bounded by a gutter of greater or less depth, whose contents should be emptied and secured as occasion requires.

Farm-yard manure is generally made up of the solid and liquid excrements of animals, with straw or hay, some in a state of decomposition, and the remainder fresh and unchanced. There exists a great difference of opinion as to the propriety and advantage of using long or fresh manure, or that which is completely rotted: these difficulties are capable of adjustment. If the intention be only to benefit the immediately succeeding crop, the manure should be completely rotted; but long manure, if immediately plowed in and covered, is more beneficial to future crops; long manure is preferable for potatoes, as rotten manure always makes them watery and worm eaten. If the object be to furnish the greatest amount of organic matter to the soil, the sooner the application is made the better; on compact elays the mixture of straw and coarse manure is beneficial, rendering them looser and lighter; while the products of decomposition are more completely retained than they would be in a looser soil. Coarse manure makes loose soils looser, and it loses more of its elements in decomposing; for this reason, compact fermented manures are preferable in such soils. For the use of crops which grow rapidly and mature in a short time, well fermented manures and fine composts are more immediately felt; such crops as turnips, buck-wheat, clover and many garden vegetables might nearly mature before decomposition would be sufficiently advanced in new and coarse manures to do them any benefit. When it is desirable to force or quicken a crop, a well fermented or fine heating manure should be used, as rich compost, bone dust, or manure of the horse and sheep. The straw of wheat, oats, &c., contains a mixture of saline substances, which is exceedingly valuable as manure to almost every kind of crop, the same may be said of their chaff. It is more economical generally to rot the straw and chaff in the barn-yard, instead of dissipating all their volatile matter in the air. When buried in a dry state, they decompose slowly and produce a less sensible effect in the succeeding crop. During fermentation an unavoidable loss of organic and of saline matter takes place; it is therefore theoretically true of dry as well as of green vegetable matter that it will add most to the soil if plowed in previous to fermentation. Yet this is not the only consideration for the practical man; instead of a slow and prolonged

action on his crops, he may require an immediate and powerful one for a shorter time, and to obtain this he may be justified in fermenting his straw with the certainty of an unavoidable loss; thus the dispute about the application of long or short manure becomes altogether of expediency and practical economy. Chaff partakes of the nature of straw, but it decomposes more slowly when buried dry. It is also difficult to ferment it even when mixed with liquid manure. The main general difference between vegetable manures of the same kind, and cut at the same age, and applied in a green or dry state, is this: that in the former it decomposes more rapidly, and therefore acts more speedily; the total effect in either case will probably be very nearly the same. But if the vegetable matter had been cut at a more advanced stage, or been more exposed to the weather while dry, it will no longer exhibit the same efficacy. A ton of dry straw cut green will manure more richly than a ton of the same cut ripe, not only because the green plant contains the materials from which the substance of the grain is afterwards formed, but because as the plant ripened it restored to the earth a portion of the saline and alkaline matters it originally extracted. After it is cut also every shower that falls on it washes out a portion of the salts which are lodged in its pores. See Scientific Agriculture—Rodgers.

All those troublesome pests, the gay robbers of our fields, hiding like bandits among the thickest growth, and only exhibiting their gaudy colors when the work of destruction has been fully accomplished, should be collected in the season of their greatest vigor, and laid in the pigsty or barn-yard to give up their stolen treasures, to purify and ferment with the matters therein contained—they are rich in fertilizing salts, and whenever and however applied are valuable as manure. It surpasses the power of calculation to estimate the amount of damage done to our crops by weeds, and the consequent advantages we should gain by destroying them in their period of bloom; almost every species produces millions of seeds which are wafted on the wings of the wind to far distant spots; they shade and occupy the soil, and by their superior vigor drain out the sustenance prepared for more delicate plants, and at last smother them to death. "Ill weeds grow apace," is an old adage and a true one, and with this in his mind it is difficult to conceive how a farmer can gaze contentedly on acres covered with the vilest products of earth, knowing how futile his labor must be when they occupy his land and strave his crops. A little labor would so soon change them into the means of increasing his gains, and the unsightly fields would blossom with waving harvests of golden grain.

The remains of plants with the excrements and carcases of animals if returned to the earth before decomposition, must contain all the mineral organic and gaseous matters which the plants derived from the atmosphere or the soil. These solid matters must all pass through the process of decomposition before they assume their original gaseous and earthy forms,

and become fit food for plants. The whole science of manuring consists in supplying to the soil those indispensable elements which have been taken up by the growing crops; the richest manure may be applied to a failing soil, and if it lacks the particular elements which the crop requires and which the soil does not contain, still the fields grow barren. Farm-yard manure probably contains the greatest number of elements necessary to fertility, but for their full development particular plants require special manures. "Manures operate beneficially on soils in various ways. 1st. By serving in some instances as food for plants. 2nd. By causing chemical changes in the soil by which other substances are prepared to be taken up as food. 3d. By neutralizing noxious substances in the soil which prevent the growth of vegetation. 4th. By their bulk and texture they change the mechanical properties of soils."—Rodgers.

In the management of farm-yard manure, three things are essential, viz: The promotion of putrefaction, in order to convert the nitrogen into ammonia, the prevention of the volatile parts from escaping into the air, and the washing away of the fertilizing salts by rains; as our barn-yards are commonly constructed, we have exactly the conditions necessary for the loss of the most valuable constituents, exposed freely to the air, which facilitates the volatilization of the ammonia as soon as formed; every rain that falls on it washes out the soluble salts, and the remains of the ammonia. In order to promote decomposition the barn-yard should be comparatively dry, and the manure laid together as thick as possible. Decomposition, however, cannot be hastened without water, but the quantity that is unavoidably mixed with it by rains, and the natural moisture of the manure is sufficient for that purpose. Too much water prevents that fermentation which causes decomposition most quickly. If any part be saturated with water, it will be observed that the straw and other fibrous matter, for a long time after the other parts are rotten, will remain quite sound. To promote putrefaction the dung should be laid thick together, by which means heat is sooner generated, the natural moisture preserved, and the manure is not burned. An excellent way to prevent the volatile gasses from being exhaled by the sun, or carried off by the wind, is to cover the heap with a layer of clay or swamp muck, with a small quantity of gypsum or powdered charcoal, which will fix the ammonia, and thus prevent its escape. When thus covered, fermentation will proceed more slowly and uniformly, and consequently the ammonia will be gradually evolved and retained.

Liebeg in his very able work on Organic Chemistry, has shown that ammonia is a very important ingredient in the nourishment of all agricultural products. During the decomposition of manure, a large quantity of ammonia is formed, but being a gaseous substance, the whole passes off and is entirely lost. If, therefore, long manure is exposed in heaps to heat and moisture, fermentation ensues, ammonia is formed, which passes off in the form of gas,

and nothing is left but a mere carbonaceous residue of decayed plants. An idea of the loss sustained by manure exposed to heat and moisture may be formed from the fact stated by this distinguished chemist that, with every pound of ammonia which escapes a loss of 60 lbs. of wheat is sustained; to prevent this loss he recommends that the stable floor be strewed with gypsum, (sulphate of lime,) the ammonia enters into combination with the sulphuric acid, and the carbonic acid with the lime, forming compounds which are not volatile, and are consequently destitute of smell. Growing plants receive large supplies of oxygen and hydrogen, the component parts of water, from the rains and dews; they are also abundantly supplied with carbon in the form of carbonic acid by the absorbing power of their leaves; but a full supply of nitrogen and alkalies, is also essential to their vigorous growth; these are more sparingly supplied from the atmosphere, and hence the importance of additional assistance.

Putrescent manures abound in nitrogen, but this important element of vegetable food during putrefaction, nearly all escapes in the form of ammonia, and should be retained by an application of gypsum to stable manure before fermentation commences. A similar process in relation to manure, saved in feeding pens, cow yards, &c., would no doubt have a most beneficial effect, but it must be remembered that ammonia is readily absorbed by water, and consequently large portions are lost when exposed to be saturated with that fluid. Every precaution should be used consistent with economy to prevent this; placing the manure under sheds, and mingling with it a small proportion of gypsum as before recommended, would be the most effectual means to guard against this, but this is expensive. The next best method is to place the manure preparatory to its undergoing fermentation, so as not to subject it to the drainage of the adjacent yards or drippings from the sheds; this can be done by a judicious selection of the feeding grounds, and by cutting ditches to carry off the superfluous moisture, and by gutters which might be so connected with troughs as to carry all the drainage to a sink where it may be absorbed by soil, charcoal, &c., or used as liquid manures, having been mixed in proper proportion with urine. In this form it is highly advantageous.

(TO BE CONTINUED.)

Notes by S. W.

The red clover plant (*Trifolium pratense*) may now be considered the great manuring crop of the country—at least in those limestone regions where the cereal grasses are successfully grown. This invaluable plant was first introduced into Pennsylvania about the year 1770, and the value of gypsum as a manure for both the cereal and herbaceous grasses had been discovered only a short time before. A laborer in Germany, who had worked in stucco-mortar, observed the stimulating effect of the dust from his clothes on the growth of the grass along the path he traversed to and from his labors. Judg Peters, of Pennsylvania, that great Empe-

sario in the agricultural progress of his native State, having learned these interesting facts, procured some imported clover seed, and also a bushel of the plaster of Paris from a maker of stucco work Philadelphia, and commenced the first of those important experiments which have since been reduced to that regular system of farm management which has already added millions to the agricultural profits of Pennsylvania and New York, to say nothing of what red clover has done for the great wheat-growing States of Ohio, Indiana, and Michigan, nor what it is to do, sooner or later, for those prairie soils of the west now so fabulously productive as to deride the idea that they are amenable to the same natural laws which govern all rural economy at the east, where nature demands a *quid pro quo* to keep her used soil intact.

The red clover plant, by its expansive, leafy foliage, is a great collector of ammonia and carbonic acid from the air, while its long tap root exerts a like influence in collecting from the soil, and sub-soil, both mineral and organic plant food; hence its great value as a manuring crop.

The application of plaster to clover not only gives to the plant both lime and sulphuric acid in an available form when dissolved by the rains, but it is also supposed to aid in collecting ammonia from the atmosphere for the benefit of the growing plant. But as plaster is only an inorganic component in plants composed of only two simple substances, sulphuric acid and lime, it cannot be supposed that its repeated application to crops without the aid of those organic ingredients and alkaline salts, contained in clover or stable manure, will produce the same continued manurial effect.

But there is another reason why clover, as a manuring crop, is a great desideratum to all heavy soils, to wit: its mechanical effect in making such soils porous and capable of that aeration so necessary for the introduction of the atmospheric gasses. Even a sandy soil, when it has lost its vegetable matter, is but little retentive of atmospheric plant food; hence the cultivation of red clover on a sandy soil is scarcely less indispensable as a mechanical amendment, than on the most tenacious clays. For the same reasons Peruvian guano cannot be as permanent renovator of a soil exhausted of its vegetable matter, as either stable manure or its equivalent, the matured clover plant, plowed in; because the ammonia of the guano being free, is exhausted by the incumbent crop, while stable manure performs both the mechanical office of keeping the soil porous, while it also retains a portion of its ammonia until all its carbonaceous matter is decomposed; and, as Dr. Wolf well observes, these vegetable manures also "accumulate in the soil a surplus of alkalies" in their final decomposition. Yet we are gravely told, in this day of light, by sound teachers of science, that guano is worth more to the farmer, at its price, than stable manure would be as a gift, if it must be carted a mile to the field on which it is to be applied.

Although it must be admitted that Peruvian guano is a good boon to agriculture, and that it

is the best and most economical of all concentrated fertilizers, yet it is a fact that in Peru, where it costs nothing, it is no longer a useful manure without the addition of those amendments which place potash in the soil.

Boussingault has probably done more by his continued farm experiments at Bechelbroum than any other master in vegetable chemistry, to develop the secrets of nature to vegetable growth; and his late experiments go very far to show the mechanical importance of vegetable refuse to an arated soil. In 1852 he determined with his characteristic accuracy, that, the quantity of carbonic acid in the air, enclosed in good soil, and found in it, is often four hundred times greater than in the outward atmosphere. How suggestive is this fact to the practical farmer, of the importance of keeping of his soil lively and porous, not only by the application of vegetable refuse, but by increasing the manure of his stables by all manner of means, and the cultivation of clover both as food for stock and also as a manuring crop to be plowed in without stint, as it is hardly less valuable for its mechanical office in the soil than for its alkaline mineral and organic constituents.

Joseph Harris, Editor of the *Country Gentleman*, who was several years on the experimental farm of J. B. Lawes, says that clover contains more nitrogen than the richest barn yard manure; and that some samples of clover hay contain six times as much nitrogen as the exposed and long-washed stable manure. When we add this experimental authority to that of Schublar, to wit: that a soil abounding in decaying vegetable matter (humus) will absorb from a moist atmosphere 12 lbs. of water in 72 hours, while a stiff clay absorbs only 4 lbs., and a silicious sand none at all, we have the best of testimony to show how necessary is the cultivation of clover as manurial amendment to all arated soils in the warm and dry climate of the United States.

Waterloo, N. Y.

Premium Butter.

Looking over the Essex (Mass.) Co. Agricultural Transactions, we observed statements from five persons—to whom premiums were awarded—of their method of making butter. It may interest some to know how simple a process this making *premium* butter is; so we condense three pages into as many paragraphs.

The breed of cows is not stated in any instance. The butter was made in September, the cows kept in pasture, and fed corn and fodder once a day. One competitor made 887 lbs. of butter from nine cows, from the 20th of May to the 25th of September. Another kept 11 cows and made equal to 1,062 lbs., from May 25th to September 25th. Another made from four cows, from the 2d of June to the 25th of September, equal to 445 lbs. of butter. The last kept only two cows, which yielded equal to 262 lbs., from May 15th to Sept. 18th. The milk otherwise disposed of, we have calculated at two gallons to the pound of butter, which is about the quantity usually produced. The av-

erage is from 1½ to 1¾ lbs. per day to the cow.

One competitor, only, uses water for washing away the butter-milk and churning. Three others state that the butter was thoroughly worked by hand or with the hands, so as to free it perfectly from butter-milk, and it was then salted, two using one ounce of salt to the pound, one three-fourths, and another one and one fourth ounces. The latter worked the butter over the second time after standing 24 hours, and the one who washed with water adds a tea-spoonful of loaf sugar to each ounce of salt. Good butter was the result in each case.

The milk was kept in tin pails of the common kind perhaps 14 inches across and six inches deep, into which it was strained immediately after milking. Four of the competitors mention the place of keeping as a cool cellar, and all allow the milk to stand undisturbed about forty-eight hours, when the cream is taken off. Some churn once a week, others twice a week; some prefer to keep the cream two days only, others stir it each day and churn the cream of the week together; their preferences depending, we think, very much on the number of cows kept, and the convenience of attending to churning. In warm weather the vessels containing the cream are placed in cold water before churning.—*Exchange.*

From the New England Farmer.

The Physical and Intellectual Pleasures of Farming.

In what does the secret consist of finding any real substantial pleasure in the operation of farming? Among other things you name "the monotonous business of holding the plow from early in the morning to late in the evening." As too commonly conducted, I grant that plowing is not a particularly agreeable business, and that you have described it quite tersely. Too many plowmen, having little or no thought about the true philosophical principles of their business, are more anxious to get over the greatest possible breadth of land in a day, than to do proper and the best work. They cut their furrows too shallow, and as wide as, or wider than the plow can possibly turn them, and what portion cannot be got over with the plow and aided by the foot of the ploughman, rolls back into its bed again, and the next time round its "grass side up" is put out of sight by the "cut and cover" operation, making a ridge of earth with a deep hole beside it. The ploughman twists and turns himself in all manner of shapes, is vexed with his plow, scolds at and whips his team furiously, labors and tugs and sweats away, "from early in the morning till late in the evening," and can show you as big and as mean a day's work as you could wish to see, with hardly a rod square of passable good work in the whole piece. I would not allow such a workman to plow a day for me if he would do the work for nothing, and pay ten dollars for the privilege. But if properly conducted say for ten hours in a day, which is all a merciful man will require of his animals of draught, however he may be disposed as to himself, plowing is one

of the finest and most exhilarating employments in the world.

Did you ever investigate the accurate philosophy of the plow and of plowing? Take a highly improved modern plow, and study it.

Look at it as a whole implement, and at its several parts, and reflect what a world of profound study it has cost to produce that same implement. What high mechanical principles it involves, and how beautifully do they combine together to produce an exact and most valuable result. There is the mould-board alone, although an exact mathematical combination, yet it is a problem for you, (I speak advisedly,) which, if you have not solved it, its solution will give you a pretty sharp brush, with all your mathematics. Then, too, a combination of mathematics, a little varied to suit each case, will give you the best form of mould-board for sandy and gravelly soils, for clay, and heavy moist soils generally, and for best working stubble land. The plow best adapted to sandy, and generally light, dry soils, will lay flat furrows, accurately shut in beside each other, thus preventing a too great natural tendency to evaporation, incident to such soils. Your mathematics will show you that a coulter set leveling to the land, an inclined landside to the plow, and a concave lined mould-board, all contribute to facilitate the laying of flat furrows, and that it would be difficult to drop the edges down accurately beside each other without these several provisions. The plow best adapted to clay and other heavy or moist soils, cuts rectangular furrows and lays them at an inclination of 45 deg. to the horizon. Your mathematics will show you that this is the best position for the furrows of such soils to be placed in. It can be undeniably demonstrated that none but rectangular furrows, whose depth is to their width as two is to three, can be laid at an inclination of 45 deg. present in their projecting angles a greater surface of soil to the ameliorating influences of the atmosphere, and greater cubical contents of soil for the harrow to operate on the raising a deep fine tilth, or seed-bed, and permit underneath them a freer circulation of air, and passage to the surface of superfluous moisture, than furrows any other form or proportions that are practicable to be turned. The plow in the very best manner adapted to the working of stubble lands, will be higher in the beam to enable it to pass obstructions, and shorter in the turn of its mould-board, than either of the preceding, will have a greater depth of iron in the back parts of the mould-board, which will tend to throw its loose stubble furrow all over to an inverted position, and leave a perfectly clean channel behind it for the reception of the next furrow. Thus you see there is quite a philosophy in plows and in plowing, which the intellectual farmer is bound to understand.

However dull and monotonous the business of plowing may be to you, it is not at all so to me. Starting my team in a field of a bright spring morning, with my plough all bright and clean from its winter quarters, I feel as honest a pride and pleasure at the thought of my occupation as I ever do when engaging in any employment. I strike out my lands with a

furrow as straight as an air line. After this is accomplished, I gauge my plow to cut deep furrows, and as narrow as is possibly compatible with the depth, and then take them off the land of uniformly exact depth and width, never allowing a crooked furrow to be seen in my plowing. To me it is very exhilarating to see the furrows roll off my polished mould-board, and lay beside each other with as accurate a finish as though they had been joined by a carpenter's tools and to think, as my eye surveys the smoking soil thus prepared, how mother earth always delights in bountifully rewarding the careful husbandman,—that she invites a liberal, intelligent and accurate cultivation, by returning as compensation a greatly increased crop.

FRED. HOLBROOK.

AGRICULTURAL DIVISION OF THE PATENT OFFICE.—*Report from Philadelphia.*—Mr. R. Buist, a seed grower, who resides in Philadelphia, received some seed from the Patent Office, which he says grew well. Of some Japan seed he says: "In beans there are two new varieties, one of brownish yellow cluster bean, which is very prolific, and which promises to be an acquisition; the other is a large variety of running bean, which though new, does not bear well and it is not of a good quality for eating. The most decided acquisition is a blood red cabbage lettuce, of excellent quality, which stands the heat of summer well, and gives us heads when no other variety will head. This will be a leading variety amongst that class of vegetables for a warm climate."

Steamboats and Railroads.

A Steamboat Company has been formed in Columbia for the introduction of a line of steamers on the Congaree and Santee Rivers, to ply between Columbia and Charleston. The people have been driven to this alteration from the high freights on the South Carolina Railroad. The first Steamer, Governor Graham, arrived at Columbia on the 20th inst., freighted with merchandise for several prominent merchants of Columbia.

We admire the spirit Columbia is manifesting with regard to such monopolies. It was only last week that efforts were being made at Columbia to get up a new Gas Company, which resulted in the reduction of the price of Gas. Competition is the only way by which they can be moved. Corporations, besides having no souls seem to be blind also, not to see that it is bad policy to lay on such heavy taxes as to stir up competition. We trust that this line of Steamers will be patronised by our merchants; at least until the same rates are adopted from Charleston to Columbia that are charged from Charleston to Augusta. We are unable to see the justice in charging different rates on different ends of the same road. It is urged that as they have competition on the Augusta branch they are compelled to make freight lower to that point or lose custom—in other words the people on the other (Columbia) branch have no other mode for transportation and obliged to pay whatever freight may be

charged—so much for the consequence of a corporation. For the information of such of our readers as are unacquainted with the difference of charges on these branches, we copy the following table:

Articles.	COLUMBIA.	HAMB'G.
	Rates.	Rates.
Cotton, per bale,	\$1.12 $\frac{1}{2}$	\$072
Salt, per sack,	50	25
Bacon, coffee, sugar, bar iron, shot, lead, hay, cotton, yarns, &c., &c., per 100 pounds,	30	15
Hogsheads molasses, each,	4.00	3.00
Molasses, liquors, turpentine, in barrels,	1.25	75
Beef, pork, fish, in barrels,	1.00	50
Potatoes, onions, in barrels,	50	25
Flour, in barrels,	40	25
Cement and plaster, in barrels,	60	50
Lime, in barrels,	50	40
Boxes hats, furniture, teas, and other light articles, per foot,	10	8
Dry goods, shoes, paints, drugs, chemicals, &c., per 100 pounds,	50	45
Butter, cheese, steel, sheet iron, hardware, white lead, crockery, per 100 pounds,	40	20
Hollow wares, stoves, per 100 lbs.,	50	20
Flour in sacks,	25	15
Ploughs, corn shellers, &c.,	65	50
Chairs, per dozen,	3.00	2.00
Corn, wheat, peas, &c., per bushel,	10	7
Oats, per bushel,	7	5
Brooms, baskets, hames, collars, per dozen,	50	35
Eggs, per dozen,	2	1
Turkeys and geese, per dozen,	1.50	1.00
Shovels, forks, scythes, do.,	50	37
Horse, single,	10.00	8.00
Horses, two or more, each,	7.50	6.00
[Exchange.]		

Scarlet Fever---Treatment.

DEAR SIR.—As I am writing you upon business, I concluded I would offer you a practical hint upon scarlet fever, as I consider a corner of *Soil of the South* devoted to medical recipes. For years I have been in the habit of treating scarlet fever of every grade, with an emetic of common table salt. I use it in every stage, but like all other remedies, to be speedy and effectual, it should be given early. I order it in the following formula:

Table salt, 1 teaspoonful; warm water $\frac{1}{2}$ pint. Let the patient drink rapidly until puking ensues. If one tumbler does not puke, give another, and another, until it does come on. There is no harm in the remedy; it pukes without much if any nausea, and it is not prostrating, which is quite an idea in scarlet fever, where in almost every case in this clime, the proclivity is to debilitation. After vomiting apply a warm pepper and mush poultice to the throat, and keep it there, using a gargle of vinegar and water, and opening the bowels occasionally with a small dose of oil, or salts, or an enema. Scarlet fever has a typhoid tendency as a characteristic in most cases; hence a prostrating treatment is to be avoided; consequently, calomel and bloodletting are dangerous remedies, which are to be eschewed. Whenever the throat gets clogged up, the puke must be re-

peated as above, and if one puking don't relieve, puke the case again and again—it is the life of the patient, for the throat is the dangerous point of attack. Our success has been so signal for many years, and even this winter, with the above plan that we think the salt as good a remedy to cure scarlet fever, as it is for pork. It will not invariably save pork, nor will it cure every case of scarlet fever, but the above plan will cure more cases than any I have ever adopted. The great error among medical men in treating scarlet fever, is doing too much with drastic medicine. This practice will not do; it will kill oftener than it will cure. The practitioner comes from a mistaken pathology, and has cost many a child its life, and caused many a mother's heart to bleed.

We repeat it—puke your case of scarlet fever repeatedly, if necessary, with salt and water; gargle the throat with warm vinegar and water; keep it poulticed; keep the patient moderately warm, and let him drink warm teas of any palatable kind; keep his bowels open occasionally; avoid purging, bleeding and blistering; and as a general rule, the ice practice, and you will certainly cure a lot of your cases. If the throat continues to swell despite of these efforts send for a physician and have the tonsils freely scarified, and then puke him. We have found the plan eminently successful, and can confidently recommend it to others, as we have done through various medical journals.—(Vide Southern Medical Journal, Boston Medical Journal, and Philadelphia Medical Journal.)

If you consider the matter worthy of a place in your Journal, you can insert it, as it may save the life of many a child in the absence of medical aid.

Yours truly,

H. A. RAMSAY.

Culture of the Sweet Potato.

MESSRS EDITORS: I feel it a duty I owe to my brothers farmers, to make known through your valuable paper, my mode of planting and cultivating the sweet potato. I prefer a light sandy soil. In February or March, I break it deep and close with a coulter. About the first or middle of April, I plow it close and moderately deep, with a scooter. I then run off my rows at a suitable distance according to the productiveness of the land, three feet or, over, running twice in the row, with a common scooter plow; not that I wish the furrow opened so very deep, but that the dirt may be thrown out of the furrow all the way alike. I then cut my seed and drop them one in a place, three feet apart. I then cover them by running a furrow on each side with the same plow. The first working is given by breaking out the middles with a scooter, close and tolerably deep, the hoes following to clean out the grass that may spring up in the row. After the potatoes have all come up that will come, either before or after the first working, the first good season that occurs, I replant, by drawing out of such hills as have them to spare, setting them in the missing ones. The second working is given before the vines have commenced running across

the rows, in the same manner that the first working was given, only a common shovel plow should be used instead of the scooter, the hoes following again, though they will have but little to do either time, if the plowing has been done as it should be.

The third and last working—I take my trash gang, which is numerous on my premises, carefully laying the vines from between every other row, following them with a sweep three times in a row. After going over the patch in this way, turn back, throwing the vines over into the row which has just been worked, and plowing out the others, following with the hoes.

Now, the advantage which I claim in my mode of culture, over all others that I have ever seen or heard of, is this: I can tend nearly double the amount of land, and my potatoes are as large and fine as any of my neighbors make, and turn out as much to the acre. One of my neighbors an anti-book farmer, a few years ago, laughed at me for planting my potatoes so low down. He said that they would rot. A few weeks told a very different tale. In the fall, when he saw that I had made so many fine potatoes with so little labor, he contended that he yet had one objection to my plan, and that was, they were so hard to dig. I told him that I never took a hoe to dig potatoes. I plow up what I wish to house, and let my fattening hogs take the balance.

Now, Mr. Editor, if you think this will contribute anything to the Southern planters, give it a place in your columns; if not throw it aside.—*Exchange.*

JOHN J. WILLS.

Rock Mills, Randolph Co., Ala.

Milk from Spayed Cows.

BY J. U. BECKERMANN, TIFFIN CITY, OHIO.

Except bread alone, there is perhaps no article that enters so largely into the nutrition of man as that of milk. As food and drink, it is extensively consumed by the adult portion of our race—it constitutes the exclusive nourishment of nine-tenths of all children under twelve months, and forms the chief diet of the remaining one-tenth.

The chemical and medical properties of milk have long been made the subject of scientific investigation, and long has the writer in vain looked for something from the pen of a senior observer on the point of which he now wishes to direct attention.

It has ever been a desideratum in the rearing of children who are denied the breast of a mother or nurse, to procure milk from an animal in which it approaches nearest to that of the human female, and which shall uniformly have the same constituent properties.

In looking over the tables which are given of the constituents of milk, we seldom meet two authors who agree in their observation; indeed, so great are the discrepancies, that they only serve to confound us in confusion. This circumstance can be accounted for by the different animals experimented upon, the season

of the year, the character of the food afforded, and the period of pregnancy or non-pregnancy of the animals at the time of the experiments.

Taking the cow, we find that exercise and food, among other things, greatly affect the quality of the milk. The milk of cows kept in the byre contains a larger amount of butyric acid than is afforded by animals running at large, while the milk of the latter abounds more in casein. So great, indeed, is the influence of food upon the secretions, that, when cows are fed upon bitter or strong-smelling grass or herbs, the taste and smell of such grass is imparted to the milk.

Milk, we have already said, forms the chief diet of that unfortunate class of infants, who are reared by dry nursing, and it is estimated that three-fourth of these die; indeed, it has been said that in London, this mortality amounts to seven-eights of the whole number. Be this as it may, we do know the mortality to be very great, sufficiently so, at least, to demand the earnest attention of every physician.

Standard authors direct children who are thus reared, or who have been early weaned from the breast, to be supported upon milk largely diluted by water and sugar, without, however, any reference to the condition of the animal from which the milk is derived. This we hold to be a serious defect, to be especially so considered, when the remedy is at hand, yet seldom or never used, for lack of information upon the subject.

Lasinge found that the milk of cows far advanced in pregnancy, contains neither casein, sugar of milk or lactic acid, but abounded in albumen and uncombined soda; while from the same animal, shortly after parturition, the three first named substances were found, and albumen was entirely absent.

It is now the received opinion, that upon the accession of pregnancy, a woman should no longer furnish nourishment to a former child, and that such continuance proves detrimental to the health of both parties. These views are confirmed by experience, and by the habits of inferior animals.

If the milk of a pregnant woman afford improper nutriment to a child, surely the same fluid from a cow, in like condition, cannot be proper. Remembering then, that cows, on an average, are pregnant three-fourths of the whole year, the inference must be that the milk ordinarily derived from these animals is not of a proper character to constitute the diet of infants.

With a view to remedy this universally existing evil, I would suggest to the profession the propriety of having milch cows spayed, in order to procure milk of a uniform consistency. The act of spaying is performed with facility, and is unattended with danger, the only precaution necessary being, that no food be given for twelve or fifteen hours, and the milk drawn immediately before the operation; the animal becomes kindly disposed, is easily kept still, yields better, and a larger amount of milk in a given time, and is with great ease brought into a marketable condition.

The steps of the operation upon the cow are the same as upon the calf or the sow, except that it is important to place her upon the right side, unless the operation be left handed. The best time for operating is about four weeks after parturition, as the future amount of milk will depend upon the quantity given at the time of the operation. For some weeks after, the secretion of milk will be small, but will gradually increase until the amount previously given is furnished, which we have known continued without interruption (of course less in the winter than in summer) for the space of ten years.

It is not expected that every father can be circumstanced to keep a cow for the accommodation of his child; but if physicians were to direct the attention of those who keep cows to the above facts, it would be found advantages to keep the spayed instead of the ordinary animal, and the proprietors of milk-furnishing dairies would readily furnish the supply, if the demand was made. The above facts briefly stated, we think of sufficient importance to claim the attention of every medical practitioner, as furnishing him the means of preventing much suffering on the part of advanced infancy and saving the domestic idol in the circle of many great friends.—*Western Lancet.*

PROFITS OF ORCHARDS.—A distinguished agriculturist, who has 1000 apple trees, and intends to set out as many more, says that if his apples will sell at 25 cents per bushel they are his most profitable crop; and if they will not sell, they are the cheapest food he can raise for all kinds of animals.

The Seasons---Plaster on Corn, &c.

A respected friend, on forwarding his own and other subscriptions, writes us as follows. We shall be gratified much to add his name to our list of contributors. Will some one or more of our subscribers, who have had experience with Plaster on Corn, give us light on the subject. We have not done much in that way, but have found the best application—leaving out Guano—to be a mixture of ashes and plaster in the hill, or on each side of the hill in the first furrows run in plowing over the corn the first time. This information has been given our friend by letter, in April, having received his letter too late in that month for our May number. All communications should be sent us before the 15th, if intended to appear in the next month.—ED.

MR. EDITOR:—The season is very backward with us, and the beginning for a crop not very promising. The wheat crops will be in a great measure a failure, being in most places not more than half a stand, and the plants feeble and unhealthy looking. I should be pleased to write more in detail, and something worthy of a place in your columns, but am pressed for time, being my own overseer, and in the midst of the planting season. At some leisure time I may

write something that may possibly interest and benefit some of my agricultural brethren, if acceptable to you. I hope your paper will continue to prosper, and realize all the success you could desire.

I remain, dear sir,

Very truly, yours,

T. W. M.

Chestnut Grove, S. C.

P. S.—Can you tell me the best mode of applying *Plaster* to corn, and the proper stage for doing it? I see various methods are proposed, and having no experience in the matter, would be glad to know from some one who has the best time and way of doing it. I design experimenting freely with it. I have already tested it with wheat, and with entire satisfaction.

T. W. M.

For the Farmer and Planter.

Application of Marl.

MR. EDITOR:—Not being in the practice of writing for a public Journal, and a very limited education, I trust that the many readers of the *Farmer and Planter* will excuse a farmer for writing this, as he cannot polish it with theory, his object being to gain information from those whose experience and wisdom qualify them to give it, upon the applications of Marl: what quantity per acre? whether it ought to be applied as soon as dug, or lie in piles exposed to the air and sun? and whether it should be plowed in very deep or not. Also, the best mode to apply barn-yard manure, the best way to make blind or subterraneous Water Drains, as most of all the farming land in this section has to, or ought to be ditched; and the best material to make Blind Ditches with. I trust the many contributors to the *Farmer and Planter* will not think the above questions impertinent.

LOW COUNTRY.

REMARKS—We have had no experience in Marling, but know that some of our subscribers have. Will such give “Low Country” their practice and experience? We commence in our present number, an article on making and applying manures; also, a communication on the subject of Blind Ditches, which “Low Country” is referred to, on another page.—ED.

Manure---Enquiry, &c.

The following letter of enquiry, respecting the making and applying of manures, from a new subscriber, is published for the purpose of drawing out the desired information. Who of our readers will respond? We published in our third and fourth volumes, from our exchange, the *Working Farmer*, a series of numbers on Manures, “Their uses, history,

modes of preparation, comparative value," &c., &c., which should be in the hands of every person desiring to make and apply manure. We are not certain that we can furnish the volumes entire, but can furnish many of the numbers, however. That W. G. may have the earliest information we can give through our paper, we shall re-publish in our present and next numbers, from our exchange, the *Carolina Cultivator*, an article "On the accumulation, preparation and application of Stock-yard and Stable Manure," from which may be derived much valuable information.—En.

MR. EDITOR:—I had the pleasure, not long since, of seeing a number of your *Farmer and Planter*, and was so much taken with it, that I determined on subscribing for it. I am only a small planter, or rather farmer, but I feel the want of such a paper as yours. It will be rather late to benefit me in planting the present year, as I am done; but I feel confident that it will be of service to me in working my farm, making hay, manure, &c.

Will you be so good as to let me know the best way of making manure and applying it? My land is a light, sandy land, but very fine, making from 18 to 20 bushels corn per acre, and from 600 to 800 pounds black seed cotton.

I am a strong advocate for improvement in farming, but we have no system here for farming; every man plants just what he can possibly tend in moderate seasons, and if it happens to come a little too wet, the consequence is, he has plenty of weeds and grass, and only a moderate crop of corn and cotton.

I enclose one dollar for your paper.

Yours, most respectfully, W. G.

For the Farmer and Planter.

Oregon Peas.

MR. EDITOR:—A word for Oregon Peas: I have been planting these Peas for two years past, and I must say, they are one among the best Peas I have ever tried. I would not take \$50 per bushel and do without them. They make the finest kind of forage for horses, cattle and hogs, all of which are very fond of them. They will make at least three times as much forage as the common Cow Pea, and my horses and cows would rather eat them. I plant them in drills about 2½ or 3 feet apart, sown pretty thick in the drill. For forage, cut just as soon as you see now and then a ripe pea. Let them sun 1 or 1½ days, and then haul up and throw loosely in your barn.

I have secured a few seed of the Poland Oats and Biennial Rye. I got the seed so very late, I fear I shall not be able to give them a fair

trial. They both look fine though at this time. I will let you know how I succeed with them, and how they do in this country. From the looks of them now, one would think they would do well.

Yours, most respectfully, W. G****.
Aberley Farm, East Flu., April 9, 1856.

For the Farmer and Planter.
Blind Ditches.

MR. EDITOR:—If you have no objection, I will say a few words about Blind Ditches, and give you my experience on the subject. My reason is, I see so many who know nothing about it, simple as it is, (though this is not strange when we see so many men grown grey on farms, and don't seem to know anything). I try to run my ditch so as to cut off all the veins or springs. I cut them 2 feet wide, and as deep as the fall will allow. Commence filling with poles at the head of the ditch, having the poles 10 feet long, letting the upper end of my poles rest on a step or piece of timber, so as to elevate them some 18 inches above the bottom of the ditch, the other end on the bottom. I put in five or six poles, the more the better, so as not to come too near the surface, as the plow may pull them out. This done, I commence the 2nd layer, giving 18 inches lap; this keeps the upper end of the poles elevated, and so on. This done, chink the crevices with pine bows, stalks or anything so as to keep the dirt from passing through the poles, and stopping the water, then filling with dirt, elevate it like a potatoe ridge, as it will settle down. If one don't dry, keep cutting until the land is dry, as wet land will not produce. I have never had one of my ditches to choke filled in this way. The plan of some persons of placing cross-ties and timber on them, will not do, as they are liable to fill by stock treading and breaking through, or the cross-ties sinking to the bottom, where the mud is soft, and makes a dam.

If you think proper, you may insert this in your paper; if not, light your pipe with it. I will be pleased for you to use your better judgment.

J. D. B.

Book Farming.

The following excellent article is from the *New Jersey Farmer*, and is calculated to do good service, by inducing a judicious inquiry as to the truths of agriculture. Any farmer may at least adopt those improvements in his art which have been proved and extensively adopted, while those things which are novel and not extensively in practice, should at least receive

the benefit of his best thoughts, so that when the more enterprising shall have proved or disproved their value, he may compare his opinions with ascertained results, and thus chaste his views to a closer approximation to truth.—
ED. WORKING FARMER.

The prejudice that formerly existed against book-farming, has, of late years, diminished in a remarkable degree, in some parts of the Union. In other parts, it is still very prevalent with a portion of the farmers, who rudely, selfishly, and unreasonably reject the instruction and experience of all those who have the results of their labors and knowledge recorded in a book.

This antipathy to new and improved modes of farming, has disappeared in proportion to the advancement of science and literature, and to the general diffusion of liberal and enlightened views, in a particular community. Every succeeding generation, is willing to discard some old prejudice, but in some parts of the country the progress is much more obvious than in others. And, though *old foggism* in farming, will gradually disappear—yet we do not wish to see *Young American* usurp the whole management of our domain, and drive on a system of mad experiments, or recklessly adopt theories which are expensive in their admission, and fruitless in their results.

But we desire that framers will retain so much of the *conservative* principle as will lead them to adopt innovations with caution, and not undertake suddenly to revolutionize the whole system of Agriculture. There is, certainly, a “golden mean” between the two great extremes—and he who “holds” fast to it, in husbandry, is as prudent as he who “lives contentedly, between the little and the great.”

Circumstances, for of frequent occurrence, had a tendency to bring book-farming into disrepute, with most of the plodding, practical cultivators of the soil. Among these, we might mention the occasional, or frequent appearance in the periodicals of the day, of accounts of the result of a certain process in farming, or of ill-digested experiments.

Neighbor A. made a fortune in the city, grew weary of his business, and retired to the country to spend the remainder of his days in rural enjoyments, breathing the pure air, and exercising his mind and body, in farming and gardening, and in attention to the growth of fruits, and the stock of his farm. When he grew a good crop of corn, he attributed his success to the kind and quantity of manure that was applied—if his wheat harvest was heavy, it was owing to the favorite variety which he cultivated—if his grass grew luxuriantly, he said it was in consequence of casting out the seed with a liberal hand instead of sowing only five or six pounds to the acre.

He raised several thrifty, well-proportioned horses, and their good properties were all ascribed to the stock and pedigree, and nothing to their food and treatment. His hogs were well fattened, but that was placed to the credit of the Berkshire breed, and was not in consequence of the corn they had eaten. His potato

crop failed, but this was owing to the want of a specific manure, and not to the want of better culture, though the ground was hard, the weeds grew tall, and much grass appeared. All his successes, and some of his failures were published in the papers—for he was a man of influence, who used correct language, and could make a subject entertaining, so that the columns of the editor were always open to him, ostensibly for the good of the public.

Some of the farmers, who read his accounts and essays, tried the methods which he so strongly recommended, but were generally disappointed in the results—and his neighbors who witnessed his operations on the farm—the multitude of hired laborers he kept—the tedious and expensive processes he adopted and his general lack of economy—did not regard him as an example worthy of imitation.

Lawyer B—, not satisfied with writing on jurisprudence, and finding the farmers so backward in taking up the pen, undertakes to enlighten them on the subject of agriculture.

Parson C—, Merchant D—, and Doctor E—, published their recommendations and directions to the farmers—and an account of their success and experiments were also detailed. They advised them to keep a greater number hired laborers—buy, and apply manures at a lavish rate—introduce new grass seeds, and new varieties of grain—and purchase at a high price, the far-fetched and lately-known breeds of horses, cattle, sheep, and hogs.

The observing, experienced farmers, disregarded the dictation of these theorists—and continued the same old system—condemning a plan in which the money paid to hired help amounted to more than all the sales from the farm—and wherein they could perceive, a constant disagreement between theory and practice.

Within the last 15 years, a great change has been accomplished—farmers have been better instructed in science and literature—they have acquired more *general intelligence*, and have begun to feel their importance in the community. When the publication of agricultural journals has been proposed, many have appeared as zealous coadjutors, and patrons, and have recommended such works to the favorable consideration of all those engaged in the same occupation.

Recently, farmers have not been backward in taking up the pen, in order to give publicity to the results of their operations. The hesitation and diffidence, to appear before the public as authors, arose, in great measure, from their limited education, and in capacity for writing. This lack of instruction and qualification, and a correspondent distrust, characterize many farmers of the present day, though happily the number is being rapidly diminished.

A young farmer adopts some new system of culture, and succeeds, for a series of years. His neighbors convinced by ocular evidence, become imitators of all his practice, and so it radiates, until it becomes general in the region of country to which it is best adapted.

At elections, at vendus, and at social gatherings, the conversation among farmers often turns

upon their extraordinary crops and modes of culture, the success they have had with improved breeds of horses, cattle, hogs and sheep—and the kinds of feed that have been given them—the importance of growing from few varieties of seeds and roots—and of relative advantages of the different kinds of manure, and best modes of applying them.

Why cannot all the knowledge resulting from these inquiries, discussions and observations, be published in a periodical paper, and sent at a small cost to thousands, to be read, pondered, and referred to at their leisure, instead of being listened to by ten or a dozen people? Medical journals are published, for which (so far as we know,) none write but physicians. Periodicals devoted to *mechanical* arts and developments have been principally, or wholly sustained by mechanics of the various departments. In the literary and scientific world, none presume to interest, instruct, and improve in a public popular manner, except such as have been previously qualified by tuition, study, and experience. So in agriculture the farmers should be so well qualified by literary and scientific instruction, and a theoretical and practical knowledge of husbandry, as to enable them to conduct, and be the principal contributors of journals devoted to their interest and occupation.

From the Virginia Farmer.

Ground Grain vs. Whole Grain for Stock.

The following may appear to be an unnecessary caution at this late date, when so few are supposed to feed whole grain; but if our farmers should visit the South and West, they would find many still pursuing the old plan. An analysis of the dung of an animal fed on whole grain, will clearly prove that large quantities of starch in an undecomposed state has passed with the dung, which might have been appropriated to flesh making, had the grain been ground before being fed.—ED. WORK. FARM.

The custom of feeding whole grain in the Valley of Virginia is so common and must of necessity be so, because we feed so much corn that but farmers try experiments by feeding ground grain against whole grain; and where they do try the test, and find the advantage to be in favor of ground grain for many kinds of stock, (a conclusion that they must always arrive at if they make a fair trial) they think the amount of labor too great, if they have much stock, to feed ground grain. When the farmer wants to feed heavily and push his stock or in other words, make them take on flesh fast, there is much less danger in feeding ground than whole grain with all kinds of stock except hogs. Any farmer who has fed horses or cattle loose and heavily on whole grain, cannot help noticing, that they pass a great quantity of grain from them that is not masticated; and grain which is not crushed by the animal and which passes whole from it, not only does the animal no good but is of serious disadvantage to the proper digestion of the balance, and of course, a disadvantage to the health of the animal. The fact that horses, particularly, pass so much whole grain from them, is attributa-

ble to several causes, the first of which is, that work horses are fed together in one stable, and being hungry when fed, they eat fast, each one trying to get the greatest share, and therefore they swallow a quantity of grain which is imperfectly masticated, or not broken at all. Another cause is that old horses, and sometimes young ones too, have bad teeth, and cannot crush whole grain well. With regard to the first cause I mentioned, any man may satisfy himself by feeding in separate stalls. He will find that the same horse will soon learn to eat much slower and crush his grain much better. I want to advise all persons who feed whole grain to horses, to feed in separate stalls. I suppose that any man of observation has discovered that stock do not crush their grain so fine as it is crushed by a mill; therefore as a matter of course, it is not so well prepared for digestion by the animal; then it follows that they cannot digest so much grain if fed whole, and the result is, they cannot fatten so fast. What I have said about feeding horses together will hold good as feeding cattle in troughs or on the ground. To feed cattle properly they should be on ground grain in stalls in bad weather, or separately at any time. I believe that in feeding fifteen cattle together with meal in troughs, there is as much wasted as would feed three more. Certainly the most profitable mode of feeding cattle is to build cattle houses with separate stalls. I believe that the protection those houses afford to stock would cover all costs and interests on the building in ten years, even to a very small lot of stock. It is the opinion of many feeders that fifty bushels of grain, fed in warm stables during the severe weather in winter, will put on more fat than one hundred bushels fed out doors. Take the cost of half the grain you would feed to a lot of twenty-five cattle out in the weather for three months, and you will find that you have in a few winters, a very considerable amount for building sheds. I am well aware that many feeders are in favor of the old plan of feeding whole corn out in lots, and letting the hogs pick up the scrapings; but experience is the best teacher, and with those who have tried both ways, stalling is thought to be much the cheapest, where the stock is fed ground grain. Go to Pennsylvania and other States where cattle are fed to the most profit, and you will find that stalling and feeding ground or crushed corn are the most approved plans and generally adopted. It may occur to many of your readers that I am a mill holder, because I am an advocate for ground or crushed grain. Such is not the fact. I have no interest whatever in that kind of property, except that which is felt by all farmers. My opinions are the result of at least thirty years experience in feeding all kinds of farm stock. My observations and experiments have been more particularly confined to horses and hogs, than any other kinds of stock.

Experience has taught me that I have not the fourth part of the cases of flatulent cholic among horses when they are fed on ground grain that I have when they are fed on whole grain. The whole grain taken into the stomach and

bowels engenders a great amount of gas which creates flatulent choleric. I find that I have more cases of spasmodic choleric and gripes when my horses are fed on whole grain; in fact, the general health of the horse is impaired by the amount of indigestible and whole grain which is constantly in his stomach and bowels. My favorite feed in the winter for horses is corn ground with the corn cob. The cob contains a great amount of nutriment, and answers very much in the place of rough food. I would advise all persons who are scarce of rough food to use crushed corn as it is generally called. A horse will keep in good condition on it without any roughness for some time. I am aware that many object to corn ground with the cob.—They say that the flat flakes of cob which remain very thin and hard, are made smooth by the pressure of the millstone and calculated to cut the tender intestines of the horse as they pass whole from the stomach. Such objection is not good in the general way. I have often fed for months at a time on such feed, and never experienced any bad effects from it. In this age of machinery and improvement, you can have corn ground almost any way you choose. There are crushers now which are worked by horse power, and as far as I have observed, they are free from the above named objection. They grind the corn and cob both round. Among the kinds I have seen, are Scott's Little Giant, McLagan & Co's. patent, and Sinclair & Co's. patent. I have been using one of the last named patents for three years, and found it to do well. Four horses can grind about 130 bushels of corn in the ear per day. They are attached to a band thrashing machine, and can be had in Baltimore, at about twenty-five or thirty dollars. Our experience teaches us that it is much better to feed ground than whole grain.

A FARMER.

We would remark on the above that we are in the habit of feeding most of our corn ground with the cob, but we would not feed to any animal, especially a hog, without running the crushed corn cob through a pair of stones. We have never seen any crusher that grinds fine enough to feed from profitably, if sitedly.—ED. F. & P.

From the American Farmer.
The Joint Worm in Corn.

To the Editors American Farmer—GENTLEMEN:—Your ever welcome Farmer came to hand last night, in which I find your correspondent, J. W. K., in almost as deplorable a condition from a perfectly groundless apprehension of the joint worm swarming from his fields of rag weed next spring to the total destruction of his corn crop, as were o'd Belshazzar's knees at the finger's scrawl upon the wall. J. W. K. may be at perfect ease, now and forever, so far as the joint worm ever can, under any circumstances or condition whatever, injure in the least degree the corn crop. Why, my dear

sir, just as soon would I apprehend danger from the miserable little cut worm attacking this winter night my fine herd of mixed Devon and Durham stock under their comfortable shelters, and cutting off the legs from every one of them before the morning's dawn. Yet, whilst I would thus lull you to repose about the joint worm, let me warn and loudly warn you, J. W. K., to be up and doing, for you have cause, just cause, to be greatly alarmed from another, and I do assure you, no trifling enemy to the corn crop, which I am told by my old and very observant friend and neighbor, Mr. Thos. Jefferson, does breed and winter in that self-same rag weed of yours, known hereabouts as the boorer worm, which is sometimes greatly destructive to our corn crops, and if J. W. K. is not very careful, they will give him fits next spring, in replanting five times as much corn as it first took to plant the crop, and he'll have a woeful bad stand at that. Good gracious! methinks I can hear J. W. K. exclaim in great horror; what shall I do to be saved? Why, just remember to do this, and do it like a farmer, and you will be safe. In early spring, whilst rolling and harrowing your ground, preparing for planting time, sow thinly over your field a mixture of corn and oats, in time to come up fully before planting time, then run off your corn rows in such a manner as that the laying off and covering will kill out the corn and oats in the corn furrow. By the time your corn comes up, all these worms and pests will have assembled between the corn rows, and will feast and riot there until the corn crop will be far beyond their reach. Then in working your corn, turn but one furrow to the corn the first time, then another; by which time the green crop of corn and oats will amply repay for seed sown, in way of food to the young corn crop, and you will have no replanting to do, which will give you the great benefit of an even crop; and if your land is sufficiently strong, well drained, prepared and worked, with a good season, you will have a crop to report of next fall in the American Farmer.

I live in the midst of the joint worm range, and was driven two years from the wheat crop by them. I resorted to rye and oats; they injured my rye a little, though not seriously. I have heard some good farmers say their rye had been seriously injured by joint worm; I have heard some little farmers say they had seen the oats, timothy, herds grass, &c., &c., much injured by joint worm; but never heard any man suggest they might ever damage the corn crop. I have observed closely, and have ever believed

these *little farmers* were mistaken about the joint worm ever doing the least damage to oats and the grasses.

Let me assure you, gentlemen, your views upon the Guano question are highly approved by the agricultural community hereabouts, and we are ready to do anything to get rid of Mr. Barreda and his miserable pack of Shylocks, to whom we have too quietly submitted already too long, and the agricultural interest should unite to a man, and compel their representatives in Congress to do something in this matter, or hold them to such an account upon their return home, as will keep them and the like of them at home henceforth and forever.

Respectfully, GEO. C. GILMER.
Albermarle Co., Va., January 8, 1856.

From the New England Farmer.
Seeding Land to Grass.

MR. EDITOR:—There are few, if any, operations in husbandry of more importance to the farmer than that of *seeding land to grass*. Nor are there many operations concerning the mode of performing which, there is more variance of opinion. Some favoring spring, others fall seeding; some contending for heavy seeding, others for light. So important and oft recurring is this operation of the farm, that it would seem strange that the best mode has not long since been decided, beyond all controversy. The purchase of grass seeds is quite an item of money expense; its failure to produce its desired return is followed by a still heavier loss in the time and labor expended in applying it to the soil, and the season's crop of grass.

The practice of seeding in the spring, with some kind of grain, generally oats, is, I believe, too hazardous and uncertain. Every farmer knows full well that one of the greatest obstacles with which he has to contend in New England is *drought*. That his grain with which he seeds in the spring is ready for harvest at a season when drought is most likely to ensue. That during the growth of the grain, the blades of grass are kept from making much if any progress; the shade of the grain rendering them weak and tender. That the removal of the grain at once exposes these feeble plants to the scorching rays of an almost vertical sun, which withers and burns them up beyond recovery. The greater portion of these plants are so small at the time of harvesting the grain, that they escape the too often casual observation of the farmer, and when the sun has burned them up, he concludes the seed was worthless, and forthwith blames the seedsman for the failure of his crop. Many thousands of dollars are thus annually lost in Massachusetts alone. I have tried this mode of seeding, and am satisfied that it is altogether too hazardous an operation to be tried the second time. Fall seeding, too, if left undone later than the first of September, is also dangerous, both from early and late freezing of the ground, which destroys the plant in

its weak and feeble hold upon the soil. Summer seeding at the last hoeing of corn is in favor with many farmers, but this method of seeding has always appeared to me, to be a slovenly mode of farming—perhaps not necessarily so, if sufficient pains were taken to keep the ground level, and to cut up the corn below the surface, which is seldom done.

Last season I determined to seed down in August, having taken a crop of oats from the land, it having been planted two years with corn; having harvested the oats which stood a few days longer than was desirable, I carted on ten ox cart loads of good barn-yard compost to the acre, plowed it in, harrowed and sowed berds grass, red top and clover. In a few days the land was well covered with a second crop of oats from the seed scattered in the process of harvesting, the grass came up finely, and the field presented a very beautiful appearance. By the first of October the oats had got up a foot high. I turned my milch cows in for one hour a day at first, and when partly fed off, prolonged their stay to two hours. Such a field of green fodder, at such a time, proved a valuable acquisition. The grass continued to thrive, and now presents a very promising appearance. The oat stubble left in the fall, has, I believe, been no unimportant protection to the young grass roots through the hard winter.

So highly satisfactory was this operation, that I shall pursue it again this season—sowing about two bushels of oats to the acre with my grass seed. The advantages, I deem to be three-fold. First, if your seed is good, you will be sure of not losing it by drought or early frosts; secondly, it affords an economical opportunity of applying a little fresh food for the support of your future crops, thus laying the land to grass in such good heart, that if it has been dealt with properly in its previous cultivation, it will need no top-dressing (which in my humble judgment is a most extravagant expenditure of manure, except upon low, wet lands) until it is again taken up for cultivation. And, lastly, it gives you a fine crop of green fodder at a season when it is greatly needed.

T. A. S.

Westboro', April, 1856.

REMARKS.—The subject discussed above, is an important one, and we think suggestions may be found in this article worthy of careful consideration, as great losses are annually experienced in laying down lands to grass.—ED. NEW ENG. FARM.

From the Laurensville Herald.
Dr. Fuller's Prize Acre of Corn.

R. M. STOKES, Esq.—Dear Sir : Noticing some time since a call made upon me, by the courteous and intelligent correspondent of the *Farmer and Planter*, "Laurens," in an article re-published in the *Herald*, to give my mode of managing the acre of creek bottom, submitted to the Laurens Agricultural Society at its last meeting for the premium on corn, and also being urged to do so by others, I most cheerfully comply, after begging pardon for unavoidable

delay. Not, however, without serious misgivings that many will be disappointed to learn that so large a result has been achieved by so simple and, in most respects such ordinary means.

The land selected for the experiment was one acre in the bed of an old mill-pond, carefully measured by a competent and disinterested person with a Surveyor's chain. The soil was deep, rich, porous, sufficiently dry and sandy to pulverize well. It was cultivated the year previous in corn, and left clean of grass and weeds, or other litter. I had it first broken the 12th of January with a long narrow scooter, as deeply as a single mule could draw it. On the 1st of April, the weeds beginning to appear, it was again plowed with a scooter. On the 13th of April the corn rows were laid off 3 feet, 10 inches in width a shovel plow, the corn dropped 12 inches apart in the drill, and covered in the ordinary way with two scooter furrows. When ready to come up, it was hoed off. Three grains having been dropped where one was expected to stand, and coming well, I had a most excellent stand for the crop though it was injured to some extent by the bud worm and birds. It was replanted on the 1st of May. The thinning was delayed on account of the bud worm, till it reached the height of about 12 inches; it was then reduced to one stalk in the hill, making the stand 3 feet 10 inches in the row to 12 inches in the drill.

The 10th of May it received its first plowing, sowing with a long scooter, and plowing out the balks with very broad, long shovels, for the purpose of better pulverizing the clods.

May 17th. Hoed and thinned to a stand.

June 9th. Pulled off suckers, of which there were a good many, notwithstanding the thickness of the corn.

June 13th. Hoed again, which merely consisted in closing up any gaps left by the plow, and shaving out any green stuff that the plow did not destroy, wounding as little as possible the corn roots.

The corn was then "laid by," having received, after planting, but two plowings and two hoggings in the cultivation of the crop and two plowings in course of preparation.

The product was carefully measured in the presence of two disinterested and respectable witnesses, and found to be 86 bushels and 3 pecks. It was damaged by a severe storm with which it was visited on the last of June, by which a great deal of it was blown down, and the yield shortened, in the opinion of several who saw it, to the amount of 15 or 20 bushels.

The object of the experiment was to satisfy myself to what extent corn could be successfully crowded, and what would be the probable maximum yield on our very best lands, under the most judicious system of culture and under the most favorable circumstances. I have long thought that we are falling far short of producing the amount of corn or other grain on our lands that we ought to do. The farmers of England thought fifty years ago, that 10 bushels of wheat per acre was a handsome return; now they make 50 bushels per acre, and have not reached the maximum. The farmers of

Kentucky, Ohio, and many of the Northern and North-Western States, make frequently 100 bushels corn per acre, and occasionally report 200: yet it is matter for proud triumph and boasting, if the farmers of South Carolina reach the very modest yield of 50 bushels per acre. Why is it so? Is it the effect of difference, of climate, soil, or agricultural skill? Or is it from a combination of all these causes? Our seasons are longer and our soil, though often poor and exhausted, presents endless varieties, stretching as it does from the sands of the sea-shore and swamps of the tide-water Districts to the rich valleys and the coves of the mountains. I doubt not the fault is largely our own. Our farms, with judicious management and a more thorough and skillful system of culture can be made greatly to exceed the ordinary product. We are in want of many of the elements of high success. We need greater attainments in, and more thorough application of the science of agriculture. We need to have the number of acres undertaken to be cultivated, curtailed, and better proportioned to our physical capacity, and that of our horses and mules. We need time to prepare the soil as it should be done for the reception of the seed, and to make and apply manures. We need a chemical analysis of our soils, that we may know to what crops they are best adapted, and in what ingredients they may be most deficient. In short, our wants are very great and pressing, but above all, we need greater pride and a higher spirit of emulation among us as a class.

Yours, &c.,

A. C. FULLER.

Laying out Surfaces.

To lay out an acre in a circle.—First fix a centre, and with a rope as a radius seven rods, three links and three-eights long, one end attached to the centre and kept uniformly stretched, the sweep of it at the other end will lay out the acre.

For one-quarter of an acre, a rope three rods and fourteen links will be the right length.

For one eighth of an acre, a rope two rods and thirteen links will be enough.

Triangles.—If you wish a triangle to contain just an acre, make each side nineteen rods, five and a half links long.

A triangle whose sides are six rods and twenty links long each, will contain one-eighth of an acre.

To lay out an Ellipse or Oval.—Set three stakes in a triangular position. Around these stretch a rope. Take away the stake at the apex of the triangle, which will be where the side of the oval is to come—move the stake along the rope, keeping it tight, and it will trace out the oval.

A square, to contain an acre, or just one hundred and sixty rods, should have each of its sides just twelve rods, ten feet and seven-tenths long.

RICE CEMENT.—This is the most perfect cement that we know of—it is perfectly durable—beautifully white and dries almost transparent. Mix rice flour thoroughly with cold water, boil gently, stirring till done.



The Farmer and Planter.

PENDLETON, S. C.

Vol. VII., No. 6, : : : : : June, 1856.

Rail Road Two Horse-Power for Sale.

Our neighbor, Col. HAYNE, requests us to say he has a new Two Horse Rail Road Power, which he will sell at cost, deducting expenses of transportation. Here is a favorable offer to any one wanting such a power.

Scarlet Fever.

Scarlet fever being now prevalent in many sections of our country, we conclude it may be well to re-publish from our 4th volume, an article on its treatment, which may be found on the 126th page of this number. We have not known the remedies tried, but have faith in the efficacy of mild emetics, warm teas, &c., in this, to children, dangerous disease. Drastic purgatives or other prostrating remedies should never be allowed. We have known in more than one instance, the fatal effects of a dose of calomel at an advanced stage of the disease, when the patient might otherwise have recovered.

"Nancy."

The attention of our lady readers is called to the article of our fair correspondent, "Nancy." Read it, ladies, and let us again entreat you to write, follow the good example set you by Nancy, and if you are not already practising what she preaches, allow us, with an anxious desire for your happiness and prosperity in life, to advise you to heed her gentle admonitions, for we do assure you there are but few, if any, sensible men who would not feel mortified, perhaps sonred for life, in finding out, when too late to retreat, that they had united themselves to a dolt—a mere play thing, incapable of occupying the responsible position she had assumed. No young lady should ever think of marrying until she is capable of performing all the duties of the housewife; nor should a mother allow such a thing, if in her power to prevent it; if she does, she is more blamable than the daughter. On her rests the great responsibility of preparing her child to occupy in future life, the highly responsible position of a companion and help-mate to man. If she has neglected to perform this duty, she should not impose her child on an unsuspecting husband, and thus lay the foundation of

discontent and ill-humor through life. It may not be necessary for a young lady with her own hands to perform the domestic duties after marriage, but she should nevertheless be *capable* of performing them; if she is not, she is incapable of directing others.

This is a most important subject for ladies to think and write on, and we again thank our amiable friend, Nancy, for introducing it. If we did not know her already to be blessed with a good husband, we would stir up the boys with such a sharp stick, that some one of them would not be long in possessing himself of a wife in the true sense of the term. We hope often to hear from Nancy, and that others will follow her good example, and fully occupy the "Ladies' Department" in our paper.

Acknowledgments.

To our esteemed friends J. L. ORR and JUDGE EVANS, we are under additional obligations for many favors, including documents, seeds of various kinds, &c., &c. Also, to a gentleman for whom we have great regard, the Hon. S. A. DAUGLASS, for a number of speeches, reports &c. we with pleasure return sincere thanks for his favors.

A Report on the Cultivation of Native Grapes. &c., by SYDNEY G. FISHER, Corresponding Secretary of the "Philadelphia Society for promoting Agriculture." Some unknown friend, probably the Secretary, has forwarded us this very interesting report, a part, if not the whole of which, we shall lay before our readers.

Maj. R. A. GRIFFIN, Ninety Six.—Much obliged for the Dhoora corn sent us. Should have been pleased to have received it earlier. Several friends have applied to us for the Dhoora who we were unable to supply—hope we can supply them another year.

Exchanges.

Our usual number of excellent exchanges for the last month, have promptly come to hand—more so than ours went to them. In consequence of sickness and other mishaps, our May number was late in getting out.

THE SOUTH CAROLINA AGRICULTURIST.—No. 1 of this paper, the organ of the State Society, has come directed to us as a life subscriber, we suppose, as it is not directed to the "Farmer and Planter." It seems from the following, that life members are expected to make prompt and full payment of their subscription. It is not unfrequently asked of us, how the payments are to be made. At one time we understood they were to be made by installments. Now, however, it seems to be otherwise. The Editor says:

"Life members are requested to forward their subscriptions directly to the Secretary and Clerk, for the same will be returned by mail. This will ensure the immediate entering of their names on the subscription books of the Journal. The first No. will be sent to all life members."

The "South Carolina Agriculturist" is in neat pamphlet form, colored cover, 32 pages, published by the *Executive Committee of the State Agricultural Society*, and edited by Col. A. G. SUMMER, Secretary of Society. Price one dollar per annum.

Crops and Seasons.

Up to this time, May 24th, the crops in the up country so far as we have seen or heard are, by no means promising. In the first place we have had a remarkably cold winter, which has virtually injured wheat crops by freezing out the plants, on the back of that the spring has been cold, and throughout April and a part of May dry, which has so retarded the growth of what has been left standing that much of it will hardly be high enough to ent. with short heads at that, so that it may truly be said to represent old Blackstock's, which he said "was low, but thin, thank God." We believe that more wheat than usual was sown last fall, which will in some measure make up for the light crop.—Oats were also much stunted by the dry weather, but since a fine rain, or succession of rains, which we have recently had, oats are much improving, so much so, indeed, as to alarm the corn sellers. Corn from the combination of causes, not the least of which, with many of us, is the *bad worm*, is like the negro's master "no granting" yet. But begins since the rain to look up a little. The sweet potato crop must be unusually light for the want of seed. We have never known such a universal destruction of potato seed as the last winter effected. We have known the seed sold in our village as high as three and four dollars a bushel, the past spring—the customary price in our district is about 50 cents. Our gard ns are backward, but we have the promise of a fine fruit year—Apples, Pears, Peaches, &c., in abundance.—Friend THOMPSON, of the "Pirkens Courier," turns over to us a limb of a peach tree 5 inches long, with 25 peaches on it, which was sent him by MR. DUKE, of our village, and we must turn all such extra prolific limbs over to the great Doctor *Nature*, to deal with them, as we find is being done in our orchard with an unsparing hand—greatly curtailing their number by the shedding process—indeed with some of our fruits we fear the remedy more than the disease.

State Agricultural Society of South Carolina.

We stated in our May number that we had received the *South Carolina Agriculturist*, Extra, but too late in the month to allow us to extract from, or remark upon in that number.

At their meeting, held on the 4th and 5th of March,

we find quite a liberal list of premiums were offered by the Executive Committee, to be awarded at our contemplated State Fair, to be held in Columbia, on the 11th, 12th, 13th and 14th of November, 1846. This list embraces, as the Committee say, nearly every thing valuable in Agricultural and Mechanical Industry, Art, Science and Taste. It has, probably, been procured by every one feeling an interest in the Society before this late date, and we, therefore, think it unnecessary to copy the list entire, and especially so far as the various productions of our fields are concerned, it being too late to prepare and cultivate with a view to any of the premiums offered, and we would here remark that it was too late at the time of the meeting of the Executive Committee to prepare for many of the crops; but we are but just commencing in business, and have no doubt we shall have ample time allowed us in future. We believe we have not before copied the proceedings of the Committee, and will here give them, so far as the election of Secretary and Editor is concerned.

PROCEEDINGS.

Present: A. P. Calhoun, President; R. J. Gage, J. U. Adams, R. W. Gibbs, and A. G. Summer.

The premium list was taken up and arranged as published in the following pages.

Col. A. G. Summer was elected Secretary and Treasurer, and Editor of the *South Carolina Agriculturist*.

Proposals for printing the paper from Messrs. E. H. Britton & Co., and R. W. Gibbs were received, and the latter, having tendered the lowest bid, it was accepted.

Messrs. Summer, Adams and Gibbs were constituted a Committee to superintend the building and erection of the fences, stalls, &c., in conjunction with the City Council of Columbia, and make all business arrangements necessary until the next meeting of the Executive Committee.

The Secretary was instructed to procure and fit up a convenient office for the Society, at which place the business of the Society is to be transacted.

We next have the Premium List, which embraces 1st, all the crops usually grown in our State, and for which, in silver pitchers and cash, premiums to the amount of some \$400, are offered. The committee say:

Exhibitors of all the above crops must state in writing, in full, to the Secretary, all the requisitions as laid down for Corn, Cotton, &c., as above when the articles are entered upon his books for exhibition, with the witnesses' certificates for the measurement of lands and pounds, and bushels per acre; without which the Judges will be required to withhold their awards, and exhibitors not complying with these requisitions will not be allowed to compete for the Premiums of the Society.

2d. *Samples of Field Crops*, for which some \$70 is offered in \$5 premiums. The Committee say:

"Exhibitors of crops must give in writing to the Secretary a full account of each crop offered—its adaptation for profitable cultivation, &c.

Exhibitors of hay must give the mode of cultivating, curing, harvesting, &c.

3d. "Cotton Bales." From 20 down to 1—premiums to the amount of \$75.

"The Cotton must be on the Fair Ground during the Exhibition, to claim the premium."

We have next, *Domestic Animals*—1st *Cattle*, which are divided into five classes, embracing Devons, Durhams, or Short-horns, Ayreshires, Aldermeyns, and Brahmns.—"Purity of blood will be required in the first four classes. All animals of one fourth Brahmin blood to be allowed to compete."

The list of Cattle also embrace Grades, and working Oxen, and Cows, premiums to the amount of \$30.

2d *Horses*—"To be owned by residents of the State, unless otherwise specified." Divided into six classes, as follows: Heavy Draft, Blood, Ponies, &c., Morgan, Canadian, and Imported, Matched and Single for harness. Premiums amounting to \$500 are offered.

3d. *Jack's and Jennets*.—To be owned in South Carolina. Premiums amounting to \$69.

4th. *Mares*, *South Carolina raised*, \$50 in premiums.

5th *Sheep*. Five Classes, Marino, Southdowns, Leicesters or Blue-veil, Cotswold or New Oxfordshires Natives and Grades. Premiums amounting to \$200.

6th *Cashmere Goats*. Thorough-bred and Grades.—\$25 in premiums.

7th. *Swine* including Suffolks, Essex, Berk-hire, Grazier, Lincoln, Yorkshires, or other large breeds. \$150 in premiums.

Poultry. From the strutting gobler down to the tumbling pigeon. Next comes up, backed by Bacon and Mutton, Hams Flour and the products of the Dairy, and all the good and useful things of the household department, and for all of which we have premiums amounting to near \$200.

Next, under the head of "Southern Domestic Manufacturers." The ladies come in for a share for everything in their line, from a pair of Woolen Blankets down to the making of a pick out of wax. Premiums will be paid to ladies in cash, silver medals, or plate of the same value if preferred.

South Carolina Manufactures other than Domestic, in which our Cotton, Wool and Paper Manufactories are provided for.

The *Orchard and Nursery* next claim our attention, with all the varieties of fruits cultivated, hedge plants, &c. Also *Arbericulture*, *Floriculture* and *Horticulture*, with all that is beautiful and useful, claim their place in the picture.

Mechanical Premiums—Here follows a most interesting and indispensable list, embracing Southern Farming Implements and Machinery with Manufactures of Wood and Iron; Leather, Stone and Marble, also Chemical Manufactures, Oils, Cements, Minerals, &c. *Hats*.—Aye, who would be without a hat. And here follows three premiums that we must give in full—

Reclaiming Land and Hygiene.—Would that more of it was done:

"For the best and most economical mode of resuscitating worn out Land, based upon actual

experiment, either by domestic composts, mineral manures, or green crops—Silver Pitcher, worth \$30.

For the best Essay on Plantation Hygiene by a planter, based on practical experience, \$30.

For the best Essay on the diseases and treatment of domestic animals—Silver Pitcher, \$30.

Native Artists, next claim a share for Sculpture and Painting.

Boxing Match. This is surely a picayune concern. Only two \$5 premiums offered and that to negroes, a man and boy.

A Committee on Miscellaneous Articles will be appointed, whose attention will be devoted to all articles not specially provided for.

The regulations of the Society will be published in our next.

Planting and Culture of Corn.

We observe that quite an interesting discussion has been going on for some months past in the "Soil of the South," on the subject of "corn culture." The main point of difference in opinion seems to be on deep and shallow plowing—the one party contending for the former and the other for the latter practice. A friend who has been reading the arguments pro and con as they came out, with much interest, asks for our opinion of the matter in dispute; this we feel disposed to give, not for the purpose of entering into the contest,—though it may be a free fight—but mainly in compliance with his request.

At one time, in my years since, we were, either from the opinions of others or of our own, specially inclined, decidedly in favor of deep plowing, and if we mistake not wrote an article for the "Farmers' Register," in which we advocated the practice—but some experiments made afterwards much modified our views, and carried us back to our former practice of planting at a medium depth, and which practice we yet pursue.—We speak of having made experiments, one of which we will here detail. In preparing a stubble field for corn, (in February we think) it was thrown into five foot beds, with a deep running two horse turning plow, and so suffered to lie until corn planting time, when with the exception of a few beds, all were lightly opened with a narrow shovel plow for the reception of the seed corn, which was covered with the same plow by ridging on it. The bed excepted were not many, a dozen perhaps through the field, for we had had reason already to doubt the correctness of our former opinions. Instead of planting *on* these beds, the plow was run in the water-furrow between them, and in this deepened furrow the corn was dropped and covered by ridging on it. The result was most striking from the first appearance of the young corn to the maturing of the crop. Indeed the difference was so marked to the eye, that we did not pretend to make any measurement.

This experiment satisfied us that deep plowing would not succeed on our land, and we abandoned the practice. The land on which we experimented had a less retentive and compact subsoil than any we have since cultivated, though it was by no means an open, pe-

the subsoil. In deep and shallow planting, the result will very much depend on the depth and permeability of the soil, but on such land as that of our experiment, the preparation was surely more favorable to success in deep planting than if it had been prepared, as was our then prevailing practice, without subsoil plowing, for the reason, that the stubble was turned down, and lay on a plain but little above the seed corn, and hence nearer in reach of the horizontal feeders of the plant than if left on top near the surface by shallow plowing.

Not knowing all the facts in relation to the former preparation and cultivation of their land we may have erroneously come to the conclusion that the advocates of deep planting, are more indebted for their success to an improved preparation and culture, than to the depth their grain is placed in the land. A writer in the "Soil of the South," in advocating deep planting, says:

"When I first began to farm, I was like David; I planted my corn very shallow, and continued to do so, until I ran out of seed. The reason of that was, I always pulled my fodder before my corn was ripe, (fodder nearly always burn up,) the consequence was, the ears were so dried and shrivelled that the grain would not sprout. At last one of my neighbors, who was an older hand at the bellows than myself, says to me, you do not put your corn deep enough in the ground, that is the reason your fodder is always burnt up before your corn is ripe. Says he, walk over into my field and look at my corn, (remember we both planted at the same time,) and to my great astonishment, his fodder was perfectly green and corn nearly hard. That just convinced me right away, that shallow planting will not do."

But he does not tell us how deep he plowed in the preparation of his land previous to his conversion by his neighbor. Evidently he plowed deep afterwards, as will appear from a further extract we make. He says,

"I will here give you my experience on 45 acres, two or three years ago. My land was (I mean my 45 acres) partly stubble, the balance was in cotton the year before. I commenced about the first of Feb. to prepare my land, which was as follows: I ran off my rows four and a half feet apart, with a long scooter, 15 inches long, and as deep as two good mules could pull it. I ran in the same furrow with another scooter as long as the first, but two sizes larger. I then threw two scooter furrows on the first, forming a ridge. About the 10th of March, I commenced planting my corn, by opening the ridge with a long narrow shovel, as deep as two strong mules could draw the plow. I dropped the corn myself, three grains in a place, about 30 inches apart, and covered with hoe about 2 inches deep. The furrow that my corn was put in, was I think, at least 9 or 10 inches deep, and when the corn came up it appeared like it was in a ditch (in fact, it was pretty low down certain,) but when I began to think it was up high enough to work, I ran round with a long narrow scooter, breaking the middles very deep. (I will just remark, that my land was

not broken.) In about 15 days, I turned my plows in the field again, plowing close and deep as the mules could draw, followed by the hoes, levelling the dirt and strengthening up the corn, and covering up the young grass that the plows left. After I got through working, a long dry spell set in, which continued nine weeks; all my neighbors' corn, who planted like David does, was in a manner, dried up, while mine still retained its same bark green color, and looked as vigorous every morning as though it had rained the night before."

Well, the result was, after another sweeping over, a heavy crop, (1845 bushels,) whilst some of his other neighbors' corn was "in a manner" dried up. We are not informed how these neighbors *prepared* or *cultivated* their land, however, and hence we may infer that it was in the old fashion.

In conclusion, we would say with all due respect to the opinions of others perhaps more competent to judge than ourselves, there is not the shadow of a doubt on our mind that *more depends on preparation and cultivation, than on deep planting.*

The Crops.

An esteemed friend in Abbeville District, in making a remittance for himself and others, writes as will be seen below, respecting the prospects of crops in his neighborhood at the date of his letter, (17th May).

One of the best remedies for the bud worm, that we have seen any where recommended, will be found on page 132, in this number, and we have no doubt it would be equally efficacious in preventing the ravages of the "bud bug" spoken of by our friend. The remedy is, to buy them off by preparing food for them in advance. We have seen the remedy recommended before, but had forgotten it 'till we found the article alluded to, in the "American Farmer;" too late, however to save us a great amount of labor in re-planting the present season, as well probably many barrels of corn. The greatest difficulty is, in knowing when the worms and bugs are going to make their appearance, so that we may provide for them; but we may be almost certain when we are about breaking up old pasture lands to bring them into cultivation, that our labor will not be lost in making such provisions.—ED.

MR. EDITOR:—We have quite a gloomy prospect at present for a crop, the spring has been dry and cold, had stands of corn and cotton; however, the cotton has done better within the last five days, and on most plantations there is pretty fair stands, but it is too late. The corn has been much injured by what is called the bud bug. This occurs principally on stubble land, where there was considerable vegetable matter, particularly weeds. I have thought it somewhat strange that after the extremely severe winter, that these insects should be so troublesome. I had been under the impression that the intense cold of the past winter would have put them to rest, but to my as-

tonishment, have never seen them worse than they are the present season. How can this evil be avoided? by burning, or in any other way. To burning I object, as I believe it does an injury to the land, although there are some of a different opinion. According to my observation, these insects have generally been most troublesome in wet, cold seasons, but this has been a very dry, but cold one. It is a great evil, and what is the remedy? Wheat crops are very poor; the cold winter, together with the dry spring, have measurably cut off the crop. Oats will be very short, unless we have rain very shortly; they are late, and with frequent good showers may yet make a fair crop.

Dear F. & P., I give you the above sketch of the condition of the crops in this section, merely to enable you to furnish your patrons with a state of the crops generally, as you are looked to principally for information on all these matters. Wishing you great success in your labors and useful enterprise, and that your very useful paper may be literally sustained,

I am your most obt serv',

R.

Abbeville Dist., S. C., 17th May, 1856.

Wire Grass.

We have received a private letter, from which we extract the following Post Script.

"P. S.—There was so nothing said in one of your numbers about the destruction of Wire or Joint Grass. Have you heard any thing more from the writer on that to me, and probably on my others, interesting subject? If so, please let us have it, for I do assure you I am extremely anxious to learn the *modus operandi*."

ESQUIRE.

REMARKS.—So are we, but up to this time, have heard nothing more from our correspondent. "Enquirer" can scarcely be more annoyed by this great pest, though excellent grass could it be kept in due bounds, than we are, and hence we have looked with much anxiety for an article on its destruction, which was asked for.

In looking over some of the back numbers of our exchanges, we find in the "American Farmer," (Vol. 10, No. 1, 1854,) an extract of a letter from Judge CHRISTIAN, to E. ROSE, Esq., which details a more successful experiment than any we recollect seeing, and which the Editor says, "His article drew much attention in lower Virginia." We find the article marked for our paper, but think we have not published it. We now give it, however, and trust it may be of service to "Enquirer," as well as many others of our readers.

We will here remark that *our* grass is what the inhabitants usually called "Joint Grass." It may, in some respects, differ from the "Wire Grass," of Virginia. There seems to be a difference of opinion as to its be-

ing the same. We are informed by a writer in the "Farmers' Register," (Vol. 9, p. 29,) that, "Like many other grasses, it is so indistinct, it is not easily known by name. Its botanical name even seems doubted. While a celebrated botanist, Dr. Darlington, of Pennsylvania, calls it *Poa compressa*, the Editor of the "Farmers' Register" contends that its true name is *T. ripicium retusum*. It is known in England by the name of Coen Grass; in Pennsylvania, as Blue Grass; Virginia, Wire Grass; and some parts of South Carolina, Wire Grass, and others, Joint Grass." This writer seems to have destroyed the Wire Grass in a great degree by first fattening his hogs on the roots of it, and afterwards cultivating the land 3 years in succession in corn, peas, and pumpkins.

Eradication of Wire Grass.

The following letter has attracted much attention in lower Virginia. It is addressed to Edmund Rulif, Esq.:

Extract of a letter from Judge J. B. Christian, written to, and by request of the Agricultural Commissioner.

WILLIAMSBURG, March 24th, 1854.

"I had in Williamsburg a lot of ground of about two acres, of light soil and very rich. It has been kept enclosed, and used only for grazing for 8 or 10 years. I determined to sow it down in oats; and preparatory thereto, late in the fall of 1849, I had the lot well ploughed with a double horse plow. In the spring it was again ploughed and sowed in oats. The ground was as thickly set in wire grass as any land I ever saw. The season was a good one for oats—but the crop on this ground was a failure. It was evident that the oats were destroyed by the wire grass. I determined at once to make a new experiment towards ridding the land of this terrible pest. It occurred to me that if the land was kept constantly employed, during the whole vegetation and growing season of the year in crops that would entirely shade the ground, and for the time, prevent this grass growing up, that it would in a few years *perish out*. Accordingly, as soon as I reaped the oats, I plowed the land, and sowed it thickly in peas. The crop of peas was as indifferent one for the land. The vines remained on the ground—and during the next winter it was ploughed, preparatory for oats in the spring. At this plowing, I perceived that the wire grass had very considerably diminished. In the spring I again sowed the lot in oats. The season was not very good here for oats. However, the crop was more than double what it was the previous year. Immediately after cutting the oats, I again plowed the land, and put it again in peas, sowing them thick, more than a bushel to the acre. The vines were, as before, left on the ground. During winter it was again ploughed; and in this plowing there was not to be seen in the body of the land a vestige of wire grass. In the spring the land was again sowed in oats; and for an ordinary season there was produced, I think, as heavy a crop as I ever saw grown upon high land. During all this time there was no manure of any kind applied.—

That fall I sold the land. I learn from the present owner, Judge Scarburg, that the land has been since cultivated in various crops—corn, potatoes, turnips, &c. Yet yesterday I went with Judge S. to see the ground. We examined, and found almost no wire grass on it—certainly very little. A portion is in clover, which is very fine. A portion, a belt about 37 feet wide running through the ground, had recently been plowed. Here we had a fair opportunity of seeing whether there was much, or any wire grass still in the land. We saw not more than three or four spikes and roots in the whole plowing.

"From this experiment it would seem that two successive crops of both oats and peas, requiring only two years, will entirely eradicate this horrible bane from all small grain crops."

Remarks by E. R.—I hasten to publish the foregoing experiment, in advance of other minutes of facts or other subject, collected, that this trial may be repeated by others, as soon as possible. This may be done for the present year, by any farmer who has thickly set wire grass ground now sown either in oats or wheat. For the beginning of course, I incline to the belief that wheat would be a better growth than oats, for the object in view; as wheat would have earlier and more complete possession of the ground, and will better withstand the injurious growth of the wire grass. I know too that peas have lately following wheat tends much to restrain the growth of thickly set wire grass—and this of course has been used for that purpose with good effect, by Emanuel Coffin, Jr., of Prince George county. I have not known (on such land) a second crop of either wheat or oats to be followed immediately by another course of peas as in Judge Christian's trial—and therefore no such complete destruction of the growth of wire grass was obtained by the shorter and less perfect course of wheat, peas, wheat. If, by this course, wire grass can be even proven to be a serious obstruction to tillage for ten years thereafter, it will be an immense advantage to the agriculture of over Virginia.

From the Southern Farmer
Remedy Against the Striped Bug.

MESS'RS EDITORS:—As the time is near at hand when water-melons, cumblings, cantalups, &c., should be planted, you will confer a favor by publishing the following remedy against the ravages of the bug that so frequently destroys them.

As soon as the vines are attacked by them, dust them over as often as necessary with the common black pepper, finely pulverized. This may be done when the dew is on them without injury to the vines, as I am informed by a gentleman who has tried it. May not the pepper be also a good remedy against the ravages of the fly or bug so destructive to young turnips and tobacco plants? I intend to try it, and if it is, may I not claim the premium offered by the British Government for the discovery of a sure remedy against the turnip fly?

Very respectfully, &c.,

J. H. Davis.

Gartsdale, March 18th 1856.



Ladies' Department.

For the Farmer and Planter.

Letter from "Nancy."

MR. EDITOR:—After repeated invitations from you, to the lady readers of your very interesting paper, to write something for its columns, if only a few receipts, I embrace a leisure moment to do so, hoping that if you find my remarks void of interest, my effort will at least, show a willingness to do some good; if at the same time I betray an inability to do it. I look upon it as a shame to the female readers of your paper, when respectfully requested to write any thing they can to impart knowledge to others, that they will not comply. For I think they can if they will. They may feel at a great loss, and conscious of their weakness, and want of thought, when they first commence (as I know I do) but practice, we are told makes perfect, and there is no promise of success to those who do not try. We have to make a beginning in every thing we do in life, and the sooner the better, in most of cases; especially if any thing good is expected to result from it. For instance, in attaining an education, learning how to work, keeping house, &c., and even writing for a public journal. The subject to which I would more especially call your attention, or rather that of your female readers, is that of housewifery. It is my opinion, that mothers should educate their daughters at home, in household and kitchen affairs, instructing them to be industrious, economising, and frugal, before they are allowed to marry, or keep house for themselves. Don't be insulted, girls, it is for your good in after-life. This knowledge will not lower you in the estimation of any gentleman who will make a good husband, or one who wishes to marry a good wife. Instead of its being a stigma to be seen at work, and knowing how work should be done, it is an honor, and you will never regret any experience you have had when you get to housekeeping for yourselves. Do not think I wish to preclude all other accomplishments, they are good in their places, but if preference is given to any, let it be to having a

knowledge of domestic affairs, for this is most necessary, and one which *should be indispensable*.

One very essential part of female education is, that they understand drawing, needlework and embroidery. A lady having the above accomplishments, and practising them at home, when not engaged necessarily in other household affairs, may dress herself and family neat and tasty with the expenditure of very little money. They should be their own mantua makers, and learn to use economy in all they do; if they cannot make money they should learn to save it. A penny saved is one gained.

By economy I do not mean a closeness and stinginess; which some are pleased to call economy, (they being the most effectual preventives of all improvements,) but knowing when to expend and when to withhold expenses, what is useful and necessary, and what is not.

Mr. Editor, do not think I am backbiting for a husband, or literary father; on the all my only motive is to induce the ladies of our State, particularly of our towns and villages, to gain for themselves names of industry and economy, and not depend on those of their ancestors. As it is very probable you may not deem this worthy of further notice, I will not annoy you further.

You s, with much respect. NANCY.
A subscriber's wife.

English vs. American Girls.

The English girl spends more than one half of her waking hours in physical amusement, which tends to develop and invigorate and ripen the bodily powers. She rides, walks, drives, rows a boat, swims, runs dances, plays, sings, jumps the rope, throws the ball, builds the quiet, draws the bow, keeps up the shuttlecock—and all this without having it forever pressed on her mind that she is thereby wasting her time. She does this every day, until it becomes a habit which she will follow up through life. Her fame, as a natural consequence, is larger; her muscular system better developed, her nervous system in better subordination, her strength more enduring, and the whole tone of her mind healthier.

She may not know a man at the age of seventeen as does the American girl; as a general thing she does not; but the growth of her intellect has been stimulated by no hot house culture, and though maturity comes later, it will proportionally last longer. Eight hours each day of mental application for girls between ten and nineteen years, or ten hours each day, as is sometimes required at school, with hours for meals, one for religious duties, the remainder for physical exercise, are enough to break down the strongest constitution.—*English paper.*

A cement that will neither crack nor crease may be made with a solution of varnish and sulphuric acid, mixed to exact point of neutralization with powder of gypsum.

To Prevent Cabbages from Growing to "Long Shanks."—To secure true, solid heads on these stalks that manifest a disposition to grow to what are commonly known as "long shanks," take a penknife and stab it through the stalk about the middle; insert a small piece of wood to keep the incision open, which will check the growth. By doing this good heads of cabbage may be secured on every stalk.—*Genesee Farmer*

Our Pudding.—To one pint ready boiled wheat-berries, add one quart of milk, a large handful of currants, raisins or dried raspberries, and boil. Beat three eggs, two tablespoons of sugar and a little nutmeg as salt, with a cup of milk; stir in gradually, stir it steadily about three minutes and then take from the fire, pour in a deep dish and serve cold.

FLY POISON WITHOUT ARSENIC.—The following preparation is much used in Europe for the destruction of flies:—Quassia, eight parts; water, five hundred parts; molasses, one hundred and twenty-five parts. Boil the quassia and water ten minutes; strain and add the molasses. The preparation can easily be made by any one. Flies are attracted by this and soon killed.

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J W Robinson.	Ander on C. H., S. C.	\$3.
Capt J C C Feaster.	Feastersville,	1.
Dr B T Kilgore.	Barleywo d.	2.
J H Baskin.	Mountain View,	1.
Elias Key.	" "	1.
J A Hemingway.	Chinn Grove,	1.
Col T P Brockman.	Pinney, (vol. 5, 6)	2.
Col F Hoke.	Williamson,	1.
Maj Goe.	Boswell, Ivy Island,	1.
J G Kent.	St. Matthews,	1.
R A Catis' Club.	Glen Springs,	13.
Gen'l. B B Foster.	" "	1.
Co. Wm. McNeely.	Fountain Inn,	1.
R H Vaughn.	" "	1.
Wm Galen.	Waterloo,	1.
F M Willis.	Cedar Falls,	1.
G Terry.	" "	1.
C Terry.	" "	1.
R A Griffin.	Ninety-six,	2.
S W Spearman.	Shop Springs,	2.
Jos Leaphart.	Rocky Hill,	1.
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J M Danzler.	St. Matthews,	1.
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Strawberry Ag'l Soc'y.	Charles on.	2.
W J Ball.	"	2.
M G Gibbs.	"	1.
Rev. G W Huckabee.	Lownsville,	1.
J L N Smith.	Pendleton,	1.
Elias Earle.	Anderson C. H.,	5.
obt Smith.	" "	1.
John Hanks.	Craytonville,	50.
J H Keil.	Walhalla,	1.
F Ginter.	"	1.
Dr J Mobley.	Cornwells T.O.,	1.
Dr. W L Anderson.	Greenwood,	S. C.
Mrs. E E North.	Pendleton,	2.
Dr J S Read.	Cathrons Mills,	1.
W L Cathron.	" "	4
Wm H Bradley.	Long Cane,	2.
Lethe Farm School.	W. F. Manns,	1.
I F Stanley.	Clear Spring, (vol. 6)	1.
Ald Greene.	Pleasant Grove,	1.
Jas K Dickson.	Milord,	1.
A S Nichols.	Cross Hill,	1.
Jas M Henderson.	Mayhenton,	1.
Hon Joel H Berry.	Malino,	Miss.
Jas Holges.	"	1.
Thos Moon.	"	1.
Wm Berry.	"	1.
M F Berry.	"	1.
J B Gamrell.	"	1.
Hon G H Pope.	Thomastown, (vol 6)	"
S M Wilson.	Rome,	Ga.
T F Symmes.	Lubignee,	"
V M Barnes.	Rayesville, (vol. 6)	"
R B Ry'e.	Columbus, (vols 2, 3, 4, 5)	4.
Col D S Johnston.	Madison,	"

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November, 1855. [11—6M]

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W. R. JONES, Principal.

January, 1856. [1—1v]

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